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CORNWALL COUNTY COUNCIL.

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# ANNUAL REPORT

OF THE

Medical Officer of Health,

FOR THE YEAR 1919

BY

E. M. CLARKE, M.D. (LOND.)

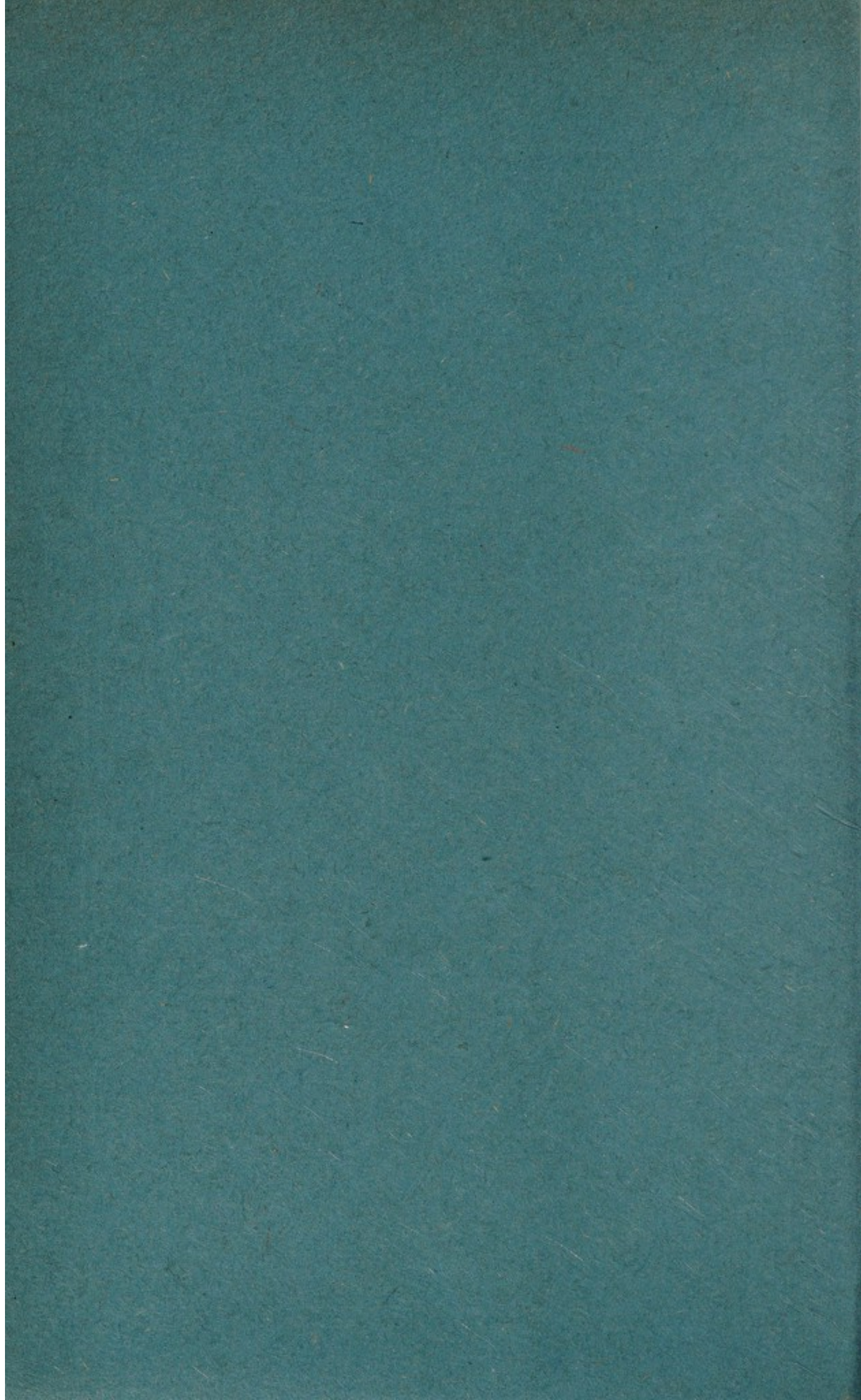
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TRURO :

O. BLACKFORD, PRINTER TO T.M. THE KING AND QUEEN.

1920.









COUNTY HALL,  
TRURO,  
JULY, 1920.

To the Chairman and Members of the Sanitary Committee  
of the Cornwall County Council.

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LADIES AND GENTLEMEN,

I beg to present my Annual Report on the public health of Cornwall.

The year was marked by the passing of the Ministry of Health Act, 1919, and the Housing, Town Planning, etc., Act, 1919. The former Act makes it possible to reorganise public health work on a sound basis, and although there is little to report at present, important changes are under the consideration of the Ministry. The latter Act has been much criticised as economically unsound, and no doubt the passing of the Act at this time was due to the pledges of the Government given to the fighting men. The Act can only be proved to be economically unsound, however, if within a few years of the erection of the houses there is a considerable fall in prices, and it is very doubtful whether there will be a fall of as much as one-third, as is commonly predicted. If prices should remain at the present level there would be no benefit in delay as the need of houses is not disputed, and unless housing is to be subsidised indefinitely wages must be sufficient to enable the working classes to pay economic rents.

In the beginning of the year Influenza caused many deaths. In spite of this, however, there was a natural increase in the population instead of a natural decrease as in the two previous years.

I am,

Your obedient Servant,

E. M. CLARKE.



## PUBLIC HEALTH LEGISLATION DURING THE YEAR 1919.

### 1. The Ministry of Health Act, 1919.

Under this Act a Minister of Health has been appointed whose duty it is to secure the preparation, effective carrying out and co-ordination of measures conducive to the health of the people, including measures for prevention and cure of diseases, the avoidance of fraud in connection with alleged remedies therefor, the treatment of physical and mental defects, the treatment and care of the blind, the initiation of research, the collection, preparation, publication, and dissemination of information and statistics relating thereto, and the training of persons for health services. There are transferred to the Ministry of Health,

All the powers and duties of the L.G.B. and the Insurance Commissioners,

those of the Board of Education with respect to expectant and nursing mothers and children under 5 years of age,

those of the Board of Education with respect to the medical inspection and treatment of children and young persons,

those of the Privy Council and the Lord President of of the Council under the Midwives Acts, 1902 and 1918, and

those of the Secretary of State with respect to the administration of Part I. of the Children Act, 1908 (which relates to infant life protection).

### 2. The Public Health (Tuberculosis) (Revocation of temporary Regulations), 13th March, 1919.

Revoking the notification of Tuberculosis in men liable for Military Service.

### 3. The Public Health (Pneumonia, Malaria, Dysentery, etc.), Regulations, 1919.

Requiring the notification of Acute Primary Pneumonia, Acute Influenzal Pneumonia, Malaria, Dysentery, and Trench Fever.

### 4. The Rats and Mice Destruction Act, 1919.

Making it the duty of occupiers to take the necessary and reasonably practicable steps for destroying rats and mice. The Authorities to enforce the Act are the Port Sanitary Authorities in their districts and the County Council in other districts.



**5. Housing, Town Planning, etc., Act, 1919.**

Requiring the provision of houses for the working classes where necessary.

**6. Housing (Additional Powers) Act, 1919.**

Providing for the payment of money to persons constructing houses for the working classes, the prohibition of building operations which interfere with the provision of dwelling houses, and the prohibition of the demolition of dwelling houses which could be made fit for human habitation without reconstruction.

**7. The Local Authorities (Assisted Housing Schemes) Regulations, 1919.**

Giving the terms on which grants will be made for building houses.

**8. The Ministry of Health (Temporary Relaxation of Byelaws) Regulations, 1919.**

Making it possible for local authorities to relax their byelaws under certain conditions. For instance, houses may be built of wood if otherwise suitable.

**9. The Board of Education (Midwives Training) Regulations, 1919.**

**10. The Milk (Mothers and Children) Order, 1919.**

**11. The Local Authorities, Milk (Mothers and Children) Order, 1919.**

**12. The Public Health (Measles and German Measles) Regulations, 1915, Rescission Order, 1919.**

Making it unnecessary to notify cases of Measles after 31st December, 1919.

**13. The Public Health (Acute Encephalitis Lethargica and Acute Polio-Encephalitis) Regulations, 1919.**

Extending previous Regulations of 1918. Notifications of these diseases to be continued until the Ministry by order otherwise directs.

**14. The Public Health (Cerebro-spinal Fever) Regulations, 1919.**

Providing for the supply of Serum and Vaccine for treatment.

**15. Rescission of Public Health (Influenza) Regulations, 6th May, 1919.**

Rescinding the Regulations about the ventilation, etc., of places of public entertainment.



## VITAL STATISTICS.

**Area.** Rural, 809,790 acres; Urban 58,377 acres. Total, 868,167 acres.

**Population.** The civil population is 305,785. This is used for all purposes except when calculating the birth rate, for which 318,537, which includes service men, is used.

The corresponding figures for 1918 were 282,629 and 316,675.

**Births.** There were 4,859 births, giving a birth-rate of 15·25 per 1,000 people living. In 1918 the figures were 4,664 and 14·7. 350 births were illegitimate in 1919 and 283 in 1918.

**Deaths.** There were 4,637 deaths, giving a death-rate of 15·16. In 1918 there were 5,036 deaths with a rate of 17·8, but 591 of these deaths were due to Influenza.

**Natural Increase.** There was a natural increase of 222. In 1918, owing to the deaths from Influenza, there was a natural decrease of 372.

**Infant Mortality.** There were 385 deaths of infants under one year of age, giving an infant mortality rate of 79·23 per 1,000 births. In 1918 there were 347 deaths and the rate was 74·4, an exceptionally low rate.

The chief causes of death were:—

Congenital debility	-	176
Pneumonia and Bronchitis	-	76
Diarrhœa	-	32
Influenza	-	11

**Children 1—5 years of age.** There were 158 deaths of children between the ages of 1 and 5 years.

The chief causes of death were:—

Respiratory diseases	-	45
Diphtheria	-	17
Influenza	-	12
Diarrhœa	-	10

Further details will be found in Tables I.—IV.

Comparison of County rates with those for England and Wales:—

	Birth Rate.	Death Rate.	Infant Mortality Rate.
<b>Cornwall</b>	15·25	15·16	79·23
<b>England &amp; Wales</b>	18·5	13·8	89

The above death rate for Cornwall should be corrected for difference in age and sex of the population, and this would reduce it to about 12·7. There has been no Census population of England and Wales since 1911 and there have been considerable changes in population owing to the war, so that estimated populations are only approximate.



The chief points about the above statistics are:—

- (1) An actual increase in the number of births.
- (2) A natural increase of population instead of a decrease.

There were 129 deaths from violence apart from suicide, a rate per thousand of the population of 0·42 as compared with 0·47 for England and Wales.

The chief causes of death were:—

		Rate per thousand of the population.
Organic heart disease	666	2·18
Respiratory diseases	581	1·90
Tuberculosis	431	1·41
Cancer	414	1·35
Influenza	242	0·79
Nephritis and Bright's disease	137	0·45
Violence	129	0·42

Approximately 1 of every 7 deaths were certified as due to Organic heart disease.

„	1	„	8	„	Respiratory diseases.
„	1	„	10	„	Tuberculosis.
„	1	„	11	„	Cancer.
„	1	„	33	„	Nephritis and Bright's disease.
„	1	„	36	„	Violence, apart from Suicide.

It seems probable that some of the deaths certified as due to organic heart disease were really due to other diseases, heart failure being a secondary cause of death.

### INFECTIOUS DISEASES.

Notifications are given in Table II. and deaths in Tables III. and IV.

**Enteric Fever.** 30 notifications and 7 deaths, giving a death rate of 0·02 per thousand of the population. Cases were notified in 9 urban and 7 rural districts. In 1918 there were 88 notifications. The death rate in Cornwall is generally rather high, possibly due to the facilities for obtaining shell-fish from polluted sources.

**Diphtheria.** 783 notifications, 485 in urban districts and 298 in rural districts. There were 68 deaths, giving a case mortality of 8·68%. Most cases occurred in Camborne U.D., 150; Truro City, 108; Truro R.D., 76; Redruth R.D., 70; and Phillack U.D., 75. In 1918 there were 541 notifications.

In only 6 urban and 4 rural districts were there no notifications.



There seems little prospect of diminishing the incidence of this disease under present conditions. Under other circumstances it might be possible to deal thoroughly with the first notification and in many cases prevent an epidemic. Sometimes an epidemic may occur in spite of every precaution being taken, due no doubt to the carelessness of parents in sending to school children suffering from mild diphtheria.

The death rate per thousand of the population was 0·2, and the notification rate 2·5 per thousand.

**Smallpox.** No cases.

**Tuberculosis.** There were 315 notifications of pulmonary tuberculosis and 64 of other forms, a total of 379. As this figure is known to be incorrect it is of no value. The only figures likely to be correct are those for the deaths:—

Pulmonary Tuberculosis	187	males,	160	females.	Total	347
Tuberculous Meningitis	15	„	15	„	„	30
Other Tuberculous Diseases	23	„	31	„	„	54
	225		206			431

The districts in which these deaths occurred may be seen in Table III. and the ages in Table IV.

In Cornwall there is usually a considerable excess of male over female deaths; for instance, in 1918 there were 230 male and 189 female deaths from pulmonary tuberculosis. In 1919 there was much less difference. There is still an excess of male deaths in some districts, for instance, in Camborne U.D., Calstock R.D. and Redruth R.D., the excess being due to pre-existing Silicosis in men who have worked abroad as tin miners.

The death rate for all forms of tuberculosis was 1·42 per thousand of the population.

**Scarlet Fever.** There were 429 notifications, an attack rate of 1·4 per thousand of the population. There were 4 deaths, giving a death rate of 0·01 per thousand of the population.

There were only 5 districts in which no cases were notified.

**Cerebro-Spinal Fever.** There were 4 notifications only and 4 deaths. Last year there were four notifications and 3 deaths.

**Poliomyelitis.** There were 24 notifications from 12 districts. 8 deaths occurred. 5 notifications were received from the Calstock Rural District. There was nothing to suggest any connection between the 24 cases.

In 1918 there were only 2 notifications and no deaths.



**Ophthalmia Neonatorum.** 28 notifications from 18 districts. In 1918 there were 16 notifications, in 1917 there were 11, and in 1916 there were 26.

**Puerperal Fever.** There were 9 notifications, 4 from Penzance Borough, 2 from St. Columb Rural District, and 1 each from Truro City, Calstock Rural District and Helston Rural District.

There were 3 deaths, 1 each in Penzance Borough, Redruth Rural District and St. Columb Rural District.

In 1918 there were 4 notifications and 4 deaths, in 1917 there were 5 notifications and 3 deaths, and in 1916 there were 15 notifications and 11 deaths.

The notification rate is of doubtful value as all cases are not notified. The 3 deaths give a death rate of 0·6 per thousand births.

**Erysipelas.** There were 87 notifications and 6 deaths. In 1918 there were 78 notifications and 3 deaths, and in 1917 there were 112 notifications.

**Measles.** There were 1,550 notifications, all districts with the exception of 6 having some cases. There were 14 deaths, giving a death rate of 0·04 per thousand of the population. In 1918 there were 2,602 notifications and 36 deaths.

**Influenza.** There were 242 deaths from this disease. In 1918 there were 591. There were deaths in nearly all districts. The death rate in 1919 was 0·8 per thousand living and in 1918 it was 1·9.

**Whooping Cough.** There were 7 deaths as compared with 58 in 1918. The death rate per thousand of the population was 0·02.

**Malaria.** There were 74 notifications, all in persons who had been abroad.

**Infectious Diseases Death-rates per 1,000 of the Population.**

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Whooping Cough.	Measles.
Cornwall	0·01	0·20	0·02	0·02	0·04
England & Wales	0·03	0·13	0·01	0·07	0·10



**SUMMARY OF THE REPORTS OF MEDICAL OFFICERS  
OF HEALTH OF THE SANITARY AUTHORITIES  
IN THE COUNTY.**

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**BODMIN BOROUGH.** Dr. Norman G. H. Salmon reports that, generally speaking, the sanitary condition of the Borough is fairly satisfactory. The Borough is about 400 feet above sea level.

The **WATER SUPPLY** is excellent and adequate, although in the higher parts it is difficult to obtain sufficient pressure to give a constant supply.

The **SEWAGE** gravitates to a septic tank half-a-mile from the town and the clarified effluent flows into the River Camel. There are many closets without a supply of water, and all houses are not provided with closets so that three or four families have to use the same one.

**Scavenging.** The refuse is dumped just outside the town. Formerly the dumps were removed for agricultural purposes, but now there is little demand for them. The refuse is therefore accumulating and forms a harbour for rats and other vermin. The scavenging is undertaken by the Borough.

**Food.** There is no public abattoir in the district and no arrangements for the inspection of meat at the time of slaughter.

**Infectious Diseases.** There is no isolation hospital and it is strongly recommended that the Council should combine with neighbouring authorities to provide one.

**Tuberculosis.** The nearest Tuberculosis Dispensary is at St. Austell, and owing to the inefficiency and expense of the train service it is suggested that a district dispensary should be opened at Bodmin. Good work has been done by the Health Visitors.

**Housing.** Estimated shortage of houses—84. Estimated number of houses in which there is overcrowding—21. General standard of housing—fair. A number of the houses are small and many of them are old. No Closing or Demolition Orders were made during the year. There are 13 obstructive buildings under consideration.

**CALLINGTON U.D.** Dr. H. Davis, jr., reports that social conditions resumed their normal level during the year.



**Water Supply.** A drought of exceptional duration was experienced during the summer, from about the middle of May until October. There was very little rain for five months and it was not until November that rain made any appreciable difference to the water supply. 250 houses are supplied by the Water Works Company, and there is a stream at Pipe Well and also some private pumps. There was never any real danger of a water famine because the stream at Pipe Well, though low, was fairly maintained and water could be obtained for the trouble of fetching it. The pressure of water could not be maintained in the houses supplied by the Water Works Company and water for flushing purposes had to be conveyed from other sources by horse and manual labour. Fortunately there was no case of infectious disease during this period. As a temporary measure a pump was placed at Pipe Well. As a permanent measure the Water Works Company promised to increase the supply and storage of water; they now state that they are unable to fulfil their promise.

**Housing.** Some houses that might be closed as unfit for human habitation are allowed to remain occupied owing to the scarcity of houses. There is a scheme for building 30 houses. It is hoped that these houses will at least benefit the poorer classes who now occupy the worst houses and cannot pay more than £7 or £8 a year.

**Scavenging.** The Authority is responsible for this work which is done by contract in a fairly satisfactory manner.

**CAMBORNE U.D.** Dr. J. Telfer Thomas reports that there are sanitary defects to which the Council should give immediate and earnest attention. The town is 400 feet above sea level in the centre of the tin mining district. The population is mainly a working class one, the chief occupation of the inhabitants being tin mining and tin streaming, rock drill manufacturing, iron engineering and safety fuse making, female labour being mostly engaged in this latter industry.

**Water Supply.** The Camborne Water Company supplies 3,053 customers in the district. The water is from springs and is filtered before delivery, and generally the service is constant. Owing to the prolonged drought, however, it was found necessary to supply water for four hours only each day. This intermittent supply was extremely scanty in some parts of the district and prevented the proper flushing of closets and sewers until December. The Water Company are considering an increased water supply. It is suggested that the Camborne Water Company's supply should be extended to the villages of Barrripper and Penponds.



**Drainage and Sewerage.** A full report is given of the present arrangements. The present system is a combined one, that is, the same sewers receive both sewage and storm water. There are five outfalls where the sewage is received into tanks through which it passes on the continual flow principle. There are no filtration beds. The tanks are often in a most unsatisfactory condition. Not only the villages of Penponds, Beacon, Condurrow, Bolenowe, Kehelland and part of Pengegon and parts of Laity Road and New Road, Troon, but parts of the town itself such as Wheal Gerry, Hughville Street, Park Road, Higher Enys Road, North Roskear Road, Mount Pleasant Road, Cadogan Road and parts of Roskear Row, Treswithian Terrace and College Street are excluded from the general system and have no form of drainage or sewers.

The effluent from the Rosewarne outfall after preliminary treatment in the tanks flows through channels over the land and discharges into the Red River, as also does the effluent from the College Street outfall. At Tuckingmill the effluent discharges into the Tin Stream. At Troon and Barripper the effluent after passing through the settling tanks discharges directly into small streams near.

Dr. Thomas states that for very many years past he has called attention to the most unsatisfactory condition of the sewerage and the methods of sewage disposal and to the urgent need of the drainage of certain parts of the district. In April, 1912, a Public enquiry was held by the L.G.B. and a Sea Outfall Scheme sanctioned. Unfortunately there was some delay in proceeding with the work and the war in 1914 caused the scheme to be postponed.

There are approximately 1,596 water closets, 48 pail closets, and 2,200 privies in the district. Dr. Thomas emphasises the great disadvantages of the privy system and considers that they cannot but be detrimental to public health. "Unfortunately many large privy pits, uncemented, below the level of the ground and often uncovered, still exist, particularly among the older houses."

**Cowsheds.** The sanitary condition of many of the cowsheds in the districts is reported to be unsatisfactory.

**Diphtheria.** 154 cases were notified, a disease rate of 10·7 per 1,000. There were 9 deaths, a death rate of 0·62 per 1,000 of the population. Diphtheria antitoxin is supplied free by the Authority and practically all the cases were treated with it. Systematic examinations of throat swabs were carried out.

**Scarlet Fever.** There were 46 cases but no deaths.



**Influenza.** There was an epidemic in February, March and April, and there were 18 deaths.

**Vaccination.** 34% of the children born in 1918 were vaccinated.

**Housing.** Overcrowding exists, but not to the extent that obtained in former years. The general standard of housing in the district is poor as regards sanitary conditions. The extent of shortage of houses is about 100. The Council have a housing scheme but the extent to which new houses will be required depends partly on the considerable migration likely to follow the depression in the mining industry.

**FALMOUTH BOROUGH.** Dr. J. Littleton Lawry gives an interesting table comparing the mean temperature for the winter months at Falmouth, Penzance, Scilly, Cannes, Montpelier, Nice, Pau and Madeira. While the mean Winter range at Falmouth is  $4^{\circ}3'$ ; at Penzance,  $6^{\circ}2'$ ; and at Scilly,  $4^{\circ}1'$ ; at Mentone it is  $9^{\circ}6'$ ; at Nice,  $11^{\circ}7'$ ; at Montpelier,  $12^{\circ}3'$ ; at Cannes,  $9^{\circ}2'$ ; and at Pau,  $10^{\circ}6'$ . It is only at Madeira that the range of  $5^{\circ}4'$  approximates to that of West Cornwall.

**Water Supply.** Good quality and ample supply.

**Pollution of Rivers.** The Penryn River discharges into the inner harbour and this river receives the untreated sewage from the Borough of Penryn.

**Drainage and Sewerage.** The sewage is disposed of by—

- (a) Two pairs of sedimentation tanks,
- (b) Septic tank,
- (c) Crude sewage on the foreshore.

The sedimentation tanks receive the sewage from the bottom of the town and that portion which overlooks the harbour and the strained effluent flows direct into the harbour. The septic tank receives the sewage from the southern slope of the principal part of the town and the purified effluent passes direct into Falmouth Bay. There are about 20 houses supplied with pail closets as they are situated below the level of the main sewer. The question of the discharge of crude sewage on to the foreshore has been under consideration for some years.

**Housing.** The extent of shortage of houses in view of new developments is 500 and a scheme for building 250 houses has been approved by the Ministry of Health and the houses are now being erected. There are 111 houses reported to be unfit for human habitation. No Closing Orders have been applied for or made owing to the shortage of houses.



**FOWEY BOROUGH.** Dr. R. T. Cann reports :

**Water Supply.** The present supply is barely sufficient and gives rise to anxiety in dry seasons. Arrangements for a larger supply are now in hand.

**River Pollution.** With a tidal harbour and much shipping the river is necessarily subject to pollution. Much trouble has arisen by pollution from oil and considerable correspondence between the various Boards and Government Departments has not produced a satisfactory solution of the difficulty.

**Drainage and Sewerage.** The Town drains into the harbour. There are 9 main outfalls and 28 private drains. The whole town is supplied with water closets.

**Influenza.** There was a severe epidemic of Influenza in the Spring, especially on some Japanese steamers in the harbour.

**Housing.** The shortage of houses is 44, and 55 fall definitely below a reasonable standard. A housing scheme for 100 houses has been prepared. The proposed site of 9 acres is outside the Borough and will necessitate a special scheme for water supply and drainage.

**HAYLE U.D.** Dr. Z. Belling Mudge reports that the social conditions of the district and the chief occupation of the inhabitants have undergone a decided change within the last 20 years. At one time there were extensive engineering works and an Iron foundry, and large milling and biscuit works. Hopes are expressed that this once thriving seaport will again become one of the leading merchantile centres of Cornwall. It possesses extensive quays forming one of the most important harbours on the exposed North Coast.

**Water Supply.** Sufficient and good. Frequent analyses are made and the water courses are fenced where possible to prevent cattle gaining access to the stream.

**Drainage.** Satisfactory, with the exception of Trelessick Terrace where the pressure of water is insufficient to fill the cisterns continuously with a supply of water for flushing the closets.

**Food.** There is no systematic inspection of meat and it is suggested that a public abattoir should be established.

**Infectious Diseases.** The need for an isolation hospital is reported so that the first cases of an infectious disease can be removed and perhaps prevent a serious epidemic.

**Housing.** There is no shortage of houses and no overcrowding.



**HELSTON BOROUGH.** Dr. F. F. White reports :—

**Water Supply.** The water supply by the Helston and Porthleven Water Company has been satisfactory in quality though there was some fear of shortage during the long drought.

**Drainage and Sewerage.** This is chiefly by privy pits which are systematically cleaned out by the Borough men. There are about 70 water closets in the town.

**Food.** There is a local prejudice against frozen meat. The butchers are unwilling to take frozen meat and the supply of meat has been unequal to the demand.

**Housing.** The Town Council has sanctioned plans for building.

**LISKEARD BOROUGH.** Dr. W. Nettle reports :—

**Water Supply.** There is a good water supply from uncultivated upland sources. It is very soft and it is suggested that the use of lead pipes should be forbidden.

**Drainage.** The town portion of the district is well sewered on the combined system, the sewage being conveyed either into water courses or on to the land and so disposed of by irrigation.

**Food.** Attention is drawn to the fact that the methods of some Borough farmers demonstrate that their standard as regards the milk collection and storage is not a high one.

**Diphtheria.** 39 cases were notified and there were 3 deaths. There is no isolation hospital.

**Housing.** The general standard of housing in the district is fairly good with the exception of various Courts, a list of which is given with full particulars. It is hoped to build 15 new houses in the near future.

**Pollution of Rivers.** A portion of the sewage of the town discharges into small streams which join the Looe River. There have been no complaints.

**LOOE U.D.** Dr. L. Moran draws special attention to :—

**Water Supply.** The water supply is inadequate during prolonged dry weather and during the visitors' season.

**Drainage.** Attention is called to the objectionable custom of dumping fish offal and other refuse over the edge of the quay near the sewage outlet. Besides being unpleasant and unsightly this practice is likely to interfere with the free escape of sewage.



**Housing.** The shortage of houses is acute, necessitating much overcrowding and the use of houses unfit for human habitation.

**LOSTWITHIEL BOROUGH.** Dr. F. H. Rudge reports:—

**Drainage.** With the exception of isolated houses outside the drainage area all houses are connected with sewers discharging into the Fowey River, which is tidal. After a heavy fall of rain following a dry spell, sewage collects on the foreshore.

The majority of the closets have no flush tank and in many the water for flushing has to be carried long distances. There are many closets which serve two or three houses.

**Food.** The conditions and localities of the slaughter-houses are far from satisfactory and there is a prospect of a public abattoir being established, the need for which is urgent. The condition of the bakehouses, also, is not altogether satisfactory and improvements have been adopted.

**Bye-laws.** The Council has not adopted any bye-laws.

**Housing.** The general standard is poor. Certain small areas have been specified as unhealthy, due to obstructive buildings and absence of through ventilation. The Council have adopted a scheme for the erection of 13 new houses.

**LUDGVAN U.D.** Dr. H. Russell Phillips reports:—

**Water Supply.** On the whole this is satisfactory. At Nancledra a shoot which supplies 20 houses comes from a spring and as the leat is not protected there is danger of contamination from cattle which have access to the stream at certain parts of the course. A piped supply to the shoot would overcome this danger.

At Canonstown one supply at the top of the hill is not properly protected, being brought up an open leat for a distance of a mile to a "shoot" at the side of the road. A notice has been placed at this spot pointing out that the water is not suitable for drinking purposes.

**Drainage and Sewerage.** There is no recognised drainage in the district. A drainage system is required for Long Rock. Complaints were frequent from the tenants of the Trescoe Terrace as to the state of the small stream at the back of this Terrace, the smell from this stream and the drainage into it becoming very offensive during the hot weather. The district being so scattered, no system of drainage could be undertaken except at Long Rock. Nearly all the closets are of the pail system. About 70 houses still have to share a closet with the neighbouring house, which is undesirable.



**Scavenging.** There is no public scavenging, so refuse heaps are found close to dwellings and these become a nuisance. A public collection of house refuse is desirable for Long Rock.

**Housing.** There are six uninhabited houses and the house accommodation is sufficient for the needs of the inhabitants. On the average rents are low, and in many cases where defects are complained of a higher rent would allow the owner to improve the property without financial loss. A cottage with garden is frequently let for £3 to £5 per year.

**MADRON U.D.** Dr. W. R. Wilson reports that the social conditions of the district are of three kinds; the villages, residential borders of Penzance, and agricultural. The villages are Madron Churchtown, Heamoor and Tolcarne. Wherrytown and Chyandour are continuous with Penzance Borough.

**Water Supply.** Heamoor has a water supply from springs piped to a reservoir and thence laid on to each house. This supply has been short during the Summer and the Council has been able to augment it by bringing in additional springs.

Tolcarne has a good supply established by the Council. The Madron Churchtown water supply is from springs in the neighbourhood of the Wishing Well and is conveyed by two pumps and a tap. There is no reservoir, and although the supply is insufficient yet a constant supply of water is to be had all the year round. It is recommended that the Council should augment this supply so that each house could have water laid on and water closets replace the present arrangements.

Wherrytown and Chyandour derive their supply from Penzance Borough.

**Drainage and Sewerage.** Madron Churchtown has a suitable sewerage system which connects with the Heamoor system and by that means is carried to the sea. There is an increasing number of hand-flushed water closets being added. Privies and middens are too near the dwelling houses and steps should be taken to improve the sanitary arrangements in Madron Churchtown.

The sewerage at Tolcarne requires attention. A scheme was approved by the L.G.B. before the war.

**Housing.** No case of overcrowding has been discovered. All the houses so far as construction and ventilation are concerned are in good order, but the sanitary arrangements require much attention.



**NEWQUAY U.D.** Dr. A. Hardwick traces the change of Newquay from a small fishing district, its inhabitants depending on the pilchard industry for their support, to the present condition, the chief occupation of the inhabitants now being catering and providing for visitors, the majority of the houses being lodging or boarding houses. During recent years increasing employment has been provided for a large number of girls in the machine knitting industry, several large factories having been erected employing about 400 hands. This has caused overcrowding in some of the smaller cottages, three or four girls occupying one small bedroom and also causing overcrowding for the rest of the household.

**Water Supply.** The supply has been sufficient throughout the year except for a short period owing to the prolonged drought and temporary defects in the pumping machinery. In view of the threatened shortage, the inadequacy of the water supply calls for the serious consideration of the Council and the Waterworks Company, and steps should be taken at once to provide additional sources of supply if the existing ones are insufficient for the growing needs of the town.

**Drainage and Sewerage.** The drainage of the town is effectively provided for, the sewage being carried out to sea by two outfalls opening into deep water. The closet accommodation is almost entirely of the water closet type.

**Isolation Hospital.** Attention is called to the fact that the M.O.H. has no authority or responsibility in connection with the hospital or its management. Patients are admitted under the care of their own medical attendants.

No provision is made for the proper disinfection of infectious clothing or bedding either at the hospital or in the district. In view of the increasing size and importance of Newquay as a health resort, the provision of a satisfactory steam disinfecter is a matter of urgent necessity.

**Housing.** The present shortage is 90—100 houses. A scheme for the erection of 54 houses during the next three years has been approved by the Ministry of Health.

**Overcrowding.** 32 cases of varying degree came under notice, due to the taking in of factory hands as lodgers by householders in small houses where the sleeping accommodation was normally barely sufficient for the family itself. The provision of a hostel for the non-resident employees engaged at the knitting factories is suggested and is being carried out in one case where 300—400 hands will have employment. It is



also suggested that in view of the overcrowding which undoubtedly takes place in the Summer months, more particularly in the smaller houses it would be more satisfactory if a scheme of registration could be adopted which would regulate the number of lodgers to be accommodated in proportion to the available sleeping accommodation and air space.

The general standard of the housing is high, the defects found being chiefly confined to the older parts of the town in cottages of the working classes, a large number of which have out-door water closets without flushing arrangements.

Three areas have been represented as "unhealthy areas" under the Housing Acts and require action to be taken. No action has been taken under the Housing Acts for dealing with the above "unhealthy areas," or for the reconstruction, closing or demolition of the houses reported as unfit for habitation.

**LAUNCESTON BOROUGH.** Dr. Arthur Budd reports:—

There were 46 births and 64 deaths, a natural decrease of population of 18.

**Baby Welfare Centre.** "The valuable work carried on by this splendid Institution has been well maintained throughout the year. There is an average monthly attendance of 18 mothers and infants."

**Water Supply.** Satisfactory in quantity and quality.

**Disposal of Refuse.** Special attention is called to the unsatisfactory manner in which household refuse is deposited outside the dwelling houses.

**Housing.** The necessity for sanitary dwellings is acute and has been for a considerable time. The Council has decided on a scheme for 24 houses, and the necessary Housing Bonds were subscribed in a very short space of time.

There are about 60 houses reported unfit for human habitation. Many are built against the country and consequently the walls are always damp. A larger scheme than 24 houses is urged on the Council.

**PAUL U.D.** Dr. H. Russell Phillips reports that the district comprises an agricultural area in which are situated the villages and hamlets of Paul, Sheffield, Trevadoc and Kerris. In addition there are the large fishing villages of Newlyn and Mousehole, with their harbours. The chief industries are fishing, fish curing for the Italian markets, agriculture, quarry-



ing and the Genatosan factory. The financial position of the population has much improved during and since the war, and whereas there was very much poverty formerly, there is now practically none.

**Water Supply.** Owing to the exceptionally dry summer, autumn, and even the last three months of the year, the springs became so low that the higher parts of Newlyn (which depends on the supply from the Newlyn Ice Co.) were badly served, so that many houses were short of water for a considerable time. With the new water supply from Chyoone Grove it is hoped that the above conditions will not occur again.

**Drainage and Sewerage.** There is no drainage proper for Mousehole. Surface drainage and slop water is conducted in "bolts" and pipes into the harbour, and the open stream also acts as a sewer.

At Sheffield slop water becomes a nuisance on the highway and the smell in the summer time is frequently offensive. At Newlyn refuse is still thrown over the quays into the harbour and causes a nuisance at times.

**Closet Accommodation.** In Newlyn there are 210 water closets, 20 water closets without flushing arrangements, and 245 pail closets. There are 350 houses without proper closet accommodation, and in a great number of cases there is no space available either without or within the dwellings for the erection of a closet.

At Mousehole there are 14 water closets, 50 hand flushed water closets, about 150 pail closets and 202 houses without closets. Both in Newlyn and Mousehole public latrines are greatly needed.

**Scavenging.** In Newlyn town the excreta from the pail closets, ashes and house refuse are removed four days weekly by horse and cart to the slip south of Newlyn and shot down the slipway into the sea. In Mousehole the refuse is collected daily and thrown into the sea.

**Housing.** The general standard of the houses is small, old, substantially built, but with few sanitary arrangements of any kind and in many cases no room for these improvements. There are unoccupied houses in Newlyn and one in Sheffield. At least 30 families living in the district are engaged in occupation outside the district.



**PENRYN BOROUGH.** Dr. J. Blamey reports:—

**Situation.** At the head of an estuary of the Falmouth Harbour. The Penryn Harbour extends for three-quarters of a mile and is tidal. The site is an ideal one for effective drainage.

**Industries.** Granite trade, steam laundries, manure works, coal, corn and potato depots. Neighbouring rope works also employ a considerable number of both sexes from Penryn. There are also extensive market gardens.

**Water Supply.** The supply is good and constant; it is from the Falmouth Waterworks. Occasionally in a dry summer there is some curtailment. There is another supply, which is not used for drinking purposes but is used for flushing the drains and for street watering.

**Drainage and Sewerage.** Practically all the closets are pan closets, many have flushing cisterns but many are only hand flushed. The gradients for the sewers are good with the exception of one or two where occasional choking takes place. The main outfall for the Borough is situated at the Quay, where the sewage is discharged in a crude state upon the foreshore. Most of this goes down with the tide but a certain amount of deposit is formed. The same applies to the main in the Budock river-bed which receives some of the sewage from the south side of the town, discharging it upon the foreshore higher up the harbour than where the main outfall is situated.

**Scavenging.** On the whole regularly and efficiently performed.

**Infectious Diseases.** Attention is called to the fact that there is no hospital accommodation available.

**Housing.** General standard fair. 46 new houses are being built. Overcrowding of 10 families. 3 houses unfit for human habitation.

**PHILLACK U.D.** Dr. Z. Belling Mudge reports:—

**Population.** This has remained about the same during the last 40 years.

**Water Supply.** The district is well supplied as regards quality and quantity, but the cost of pumping the water from an adit into the reservoir on a hill entails great expense.

**Drainage.** There are still many parts of the district to be drained, viz., Clifton Terrace, Towans, Phillack Churchtown,



Bodriggy Villas, Highlanes, Ventonleague and Angarrack, but the cost of materials makes it impossible to undertake the work at present.

**Food.** Attention is drawn to the need of a public abattoir.

**Diphtheria.** 67 cases were notified, with 12 deaths. The main cause of its spreading was due to the public frequenting the infected houses, thus acting as "carriers" from one house to another. Isolation of the cases was impossible under present conditions, at any rate in the smaller houses. An Isolation Hospital is badly needed.

**Housing.** There is a shortage of about 80—100 houses. There are many cases of overcrowding. The standard of housing is fair. Unhealthy areas: Market Street, Trevassack Court, parts of St. John's Street and Phillack Churchtown Court. These places are in a deplorable condition and cannot be properly renovated unless the families are placed in other houses.

**REDRUTH U.D.** Dr. Frank Hichens reports:—

**Water Supply.** Constant and good. There is one large reservoir.

**Drainage and Sewerage.** The sewage is discharged into tanks and then to the sewage farm at Tolgus. The intermittent system of treatment is carried out so far as the quantity of land will allow. There has been no complaint during the year as to any nuisance from the sewage farm.

Many meetings with the Redruth R.D. Council have taken place to consider a joint scheme to carry the sewage to the sea.

**Isolation Hospital.** Up to the present cases of infectious disease have been sent to the Isolation Hospital at West Tolgus, owned by the Redruth R.D. Council. Recently a house has been purchased by the Urban Council which is being converted into an Isolation Hospital.

**Food.** Dairies generally satisfactory but cowsheds generally very unsatisfactory.

**Housing.** No. of houses 2,813; No. of fresh and waste water closets 1,385; No. of privies with fixed receptacles 1,459; Houses supplied with water 2,328; Conversions from privies to water closets during the year, 13.

House accommodation very fair. Some few cases of overcrowding and a certain number of back-to-back houses.



Redruth is the centre of the tin-mining district but no mine has been working in the Urban area for many years and comparatively few working miners live in the Urban area.

**Tuberculosis.** 15 deaths, 8 of them in females of ages 23—39, 3 in males of ages 31—40, and 4 from Silicosis contracted in South Africa. There was no case of Miners' Phthisis, as was so frequently seen 20 to 30 years ago as a result of working in the Cornish mines, beginning as Chronic Bronchitis and terminating as tubercular disease engrafted on the Bronchitis, in men from 45—60 years of age. Nearly all the cases of Silicosis die at a very much earlier age than this.

**Diphtheria.** 16 notifications and no death. The type of the disease is still well marked and severe, and the favourable results are absolutely due to the antitoxin freely administered in all cases. The report shows a less number of Diphtheria cases in the district than has occurred for many years.

**ST. AUSTELL U.D.** Dr. A. Shaw reports:—The town of St. Austell is the centre of the Cornish China Clay industry and the prosperity of the town is more or less dependent on the prosperity of that industry. It is the market town for a considerable agricultural district.

**Water Supply.** Adequate in quantity and quality, and many houses in the Rural District have been supplied also.

**Drainage and Sewerage.** The sewage is carried into a stream some distance outside the area. This stream is the drain for the waste water from the China Clay Works for several miles around. After receiving the sewage the stream does not pass through any inhabited parts until it reaches the coast  $4\frac{1}{2}$  miles off. No nuisance is caused. No doubt if the population were greatly increased some system of treatment would be required, and a purer effluent passed into the stream.

**Isolation Hospital.** A provisional order for an Isolation Hospital has been sanctioned by the Ministry of Health, to be administered by a Board representative of the Urban and Rural District Councils.

**Maternity and Child Welfare.** A voluntary scheme has been carried on for some years under the auspices of the local Nursing Association. A very large number are not attracted to the Welfare Centre and it is suggested that the ideal will not be reached until medical attendance and nursing are placed within the reach of the poor as readily as money can now procure them for the rich. This would include the provision of maternity hospitals for working class people.



**Housing.** Plans have been approved for 38 new houses and building operations begun. There are still many houses back to back. There are really no unhealthy areas, at most a few groups of houses require attention. There has been no case of overcrowding.

Dr. Shaw urges every sanitary authority to provide properly equipped baths for the people, hot single baths and swimming baths. The absence of these is a great loss to the community.

**ST. JUST U.D.** Dr. J. R. M. Richmond reports:—

**Chief Occupations.** Mining and agriculture; fishing and market gardening in a small degree.

**Water Supply.** Very unsatisfactory. The following places have good supplies:—Nancherrow, Boscaswell, Bojewyan, Rose Valley and Kelynack. In St. Just Churchtown there are a few private wells, but the principal supply is from Green Lane. At Trewellard the supply is deficient in the summer, and at Carn Bosavern the quality is questionable.

**Rivers and Streams.** There are 4 small rivers, all polluted.

**Drainage and Sewerage.** This is in a most unsatisfactory state, but cannot be dealt with without a proper water supply.

**Housing.** A certain number of new houses will be required unless there is a diminution of the population. The depression in mining may cause a need to reconsider the question. There are unsatisfactory houses in the district, principally in North Row, St. Just, and Bojewyan, Pendeen.

**Food.** There are unsatisfactory dairies and cowsheds in the district owing to the Dairies and Cowsheds Act not being in force.

**Infectious Diseases.** There is no Isolation Hospital, which makes isolation often quite impossible.

**SALTASH BOROUGH.** Dr. R. Thornton Meadows, D.S.O., reports:—Saltash must be considered as a Suburban District on the outskirts of the three towns of Plymouth, Devonport and Stonehouse. The residents consist of persons having professions or businesses in the three towns; a large number of men working in the Naval Dockyards of Devonport and the Arsenal at Bull Point; a considerable element of Naval Officers and men, with their families; and retired people. There are no factories and trades utilising labour in Saltash.



**Water Supply.** There is a constant supply from Dartmoor, Burrator Reservoir, a soft upland surface water but without lead solvent power. There has been a temporary lack of supply in the upper parts of the district due to variations in pressure. The lower part of the town is also supplied by a good but hard water. In the Summer this has to be augmented by the Plymouth supply.

**Drainage and Sewerage.** All sewage is discharged without previous treatment into the tidal waters of the Hamoaze. All houses are supplied with water closets and flushing tanks.

**Scavenging.** This is carried out by contract, but with the Council's cart, and is sufficient. Attention is called to the need of stipulating in the contract that the tip for refuse must be approved by the sanitary authority.

**Food.** Most of the meat sold in the district comes from the country around where the animals are slaughtered in small private slaughter houses. The fishermen of Saltash have the right for a certain period of the year to dredge for oysters in the Hamoaze, during which time large numbers are exported, it being understood that they are for re-laying only, as owing to the pollution of the tidal waters they have been found polluted. If they are re-laid locally within a certain area, they can be used with safety. The Council should take steps to see that this undertaking is carried out.

**Infectious Diseases.** Of these the district has been very free. There is no Isolation Hospital and no disinfectors.

**Housing.** Generally this is good except for the old houses at the bottom of the town. Overcrowding is not marked. Measures have been taken for the erection by the Authority of 36 houses.

**STRATTON and BUDE U.D.** Dr. T. A. King reports that during the Summer months there was a large influx of visitors.

**Water Supply.** This is excellent in quality and quantity. Owing to the corroding of the mains and the growth of the district an extra main has been found necessary and is being laid.

**Drainage.** This is satisfactory in every way and is well managed.

**Housing.** A scheme is on hand for the erection of 60 new houses which are very much wanted in the district.



**Infectious Diseases.** There were 66 cases of Measles. Two cases of Scarlet Fever were removed to the Isolation Hospital.

**TORPOINT U.D.** Dr. S. G. Vinter reports:—The occupation of the inhabitants is chiefly Naval and Dockyard.

**Water Supply.** The supply is insufficient, especially at the higher levels, where in some cases the flush tanks fill only once a day, and it takes an hour or two to fill a bucket. A scheme to improve this is being carried out. The analysis of the water does not give such good results as in 1914, owing no doubt to the difficulty of replacing the sand in the filter beds.

**Infectious Diseases.** There is no hospital accommodation available for infectious diseases. The necessity for such provision is shown by the fact that 6 of the cases of Diphtheria and Scarlet Fever occurred in houses occupied by more than one tenant. A site might be chosen to supply the needs of the three Sanitary Authorities: St. Germans, Saltash and Torpoint, provided a motor ambulance could be supplied.

**Housing.** The general standard of housing is distinctly good. Overcrowding is known to exist in a few cases. There are no unhealthy areas and no back-to-back houses.

**TRURO CITY.** Dr. H. C. Sharp reports:—Truro is the centre of a large agricultural district. There is no large industry connected with the town but a fair amount of water borne traffic is carried on. The west part of the town is on the sea level and is occasionally flooded at high tides.

**Water Supply.** This is almost entirely from the Truro Waterworks Company. Recent analyses have proved that the water is of first class quality.

**Drainage and Sewerage.** The whole of the sewage and storm water is conveyed by sewers to the Rivers Allen and Kenwyn where it is discharged at various points in a crude state. A scheme for the disposal of sewage was provisionally approved by the L.G.B. in 1914, but nothing further has been done in the matter.

**Infectious Diseases.** 109 cases of Diphtheria were notified, of whom 82 were removed to the Isolation Hospital. Towards the end of the year most of the cases came from the Infants' Department of one of the schools. All the children were swabbed and 11 carriers found and isolated. This removed one source of infection.



**Housing.** There is no doubt a shortage of desirable houses for the general public. There is a great demand for a house as it becomes vacant, and a number of young married people are unable to get houses. The Council are obtaining tenders for the erection of 14 houses as an instalment of their building scheme. During a recent survey it was thought that 64 houses should be dealt with as unhealthy under Part I or II of the 1890 Act, and that 35 other houses in different parts of the City were not fit for human habitation.

**WADEBRIDGE U.D.** Dr. H. P. Sheppard in his report states that there are no industries or occupations involving danger to health.

**Infectious Diseases.** It would be of benefit to the town and the surrounding district to have a small joint Isolation Hospital. There has been no cause to suspect the milk, food, or water supply of the town.

**Housing.** As a result of visits which have been made under the new Housing Act, 24 houses were definitely condemned according to the new standard of requirements. It is hoped that when the new houses materialise, the accommodation difficulties will be somewhat reduced.

There has been much improvement in the streets where tarring has been carried out. The closet accommodation is fairly good, but there are still a few that would be better for water connection.

## RURAL DISTRICTS.

**BODMIN R.D.** Dr. A. G. Salmon reports that by far the majority of the inhabitants are employed in agricultural pursuits, a small part in seafaring life, and a small part in clay and mining work. There are practically no unhealthy occupations, the mining being practically all on the surface.

**Water Supply.** There are only two constant water supplies from reservoirs in the district, viz., Bridgend, which is supplied from the same source as the Lostwithiel water supply, and at Polzeath, which supplies only the larger and better houses but does not supply the comparatively few other houses, which are supplied from springs. The remainder of the district is supplied either by deep or shallow wells.

Port Isaac is supplied by two pumps, one of which goes dry in the late summer months and the other is in a very unsatisfactory position at practically the lowest part of the village.



Rock village has no adequate supply of water. Dr. Salmon has for many years emphasised the necessity for a proper water supply for these two villages, as quite apart from the necessity of a water supply, no efficient drainage scheme is possible for these villages without an adequate water supply. The North Cornwall scheme is again being considered with a view to supplying other places along the coast besides Port Isaac and Rock Village.

**Rivers and Streams.** Two of the largest rivers in the County flow through this district, viz., the Camel and the Fowey. The Camel flows north and the Fowey south from the great watershed of the district. The Camel is polluted with china clay intermittently, but the Fowey is less polluted with mine water than formerly. The stream that flows through Lanivet is less polluted than formerly owing to the substitution of pail closets. Still there are a few closets emptying into the stream.

Port Isaac stream, which runs through the lower part of the town, is still polluted with excreta from one or two closets and decaying vegetation thrown into it. It is cleaned and flushed fairly frequently, and the water has only a short distance to go over the beach before it reaches the sea.

**Drainage and Sewerage.** In all the inland villages there is no adequate system of drainage. In Port Isaac there are cottages to the number of 50 or 60 without any closet accommodation for each house. The houses are so limited for space and huddled together that to provide closet accommodation for them is almost an impossibility, considering the want of drainage in addition.

**Scavenging.** This is done regularly at Port Isaac and Bridgend. In the remainder of the villages there is no regular scavenging except what may be done by the roadmen.

**Housing.** About 60% of the houses are without one or more essentials for healthy cottages. Dr. Salmon estimates the number of houses likely to be required to replace unsatisfactory ones at approximately 244--267.

**CALSTOCK R.D.** Dr. A. Bowhay reports :—

**Housing.** There is sufficient accommodation for the working classes. In September there were 62 empty houses, of which 5 were in good condition and 17 in fair condition. The Ministry of Health have been notified that no housing scheme is necessary for the district at present.



**Tuberculosis.** There were 9 notifications of pulmonary. The Belgian refugees having returned home, the Tuberculosis Colony for Belgians at Harrowbarrow has ceased.

**CAMELFORD R.D.** Dr. E. J. Jerome reports:—The district is in the main an agricultural one. The most important mineral industries of the district are the workings for granite, slate, and china clay. There was a natural decrease in the population of 20.

**Water Supply.** Springs and wells constitutes the chief sources of water supply. The towns of Camelford, Boscastle and Trevena have public water supplies. During the very dry Summer months water is more or less scarce in places. At Tintagel last year the scarcity caused much discomfort, and drains were unable to be flushed. This year there will probably be abundance of water as two fresh springs have been opened up.

**Drainage & Sewerage.** The towns and villages of Camelford, Boscastle, Delabole, and St. Teath are more or less drained. Camelford is well provided for; Boscastle, although having a public water supply, is not so well provided for; Delabole and St. Teath, although fairly drained, have no efficient means of flushing; while St. Breward is neither drained nor has it means of flushing. A scheme for the latter place was prepared by the Council but was not sanctioned by the L.G.B.

**Food.** Milk is on occasions rather scarce, owing in a measure to the demands of a large cheese manufactory lately established at Camelford. It is recommended that the Dairies, Cowsheds and Milk Shops Order should be adopted by the Council.

**Meat.** The condition of chilled meat imported into the district during the year was, in many cases, very bad. Many lots had to be destroyed, some by Magistrates' order, but most voluntarily by the butchers.

**Housing.** There is a shortage of houses but it is difficult to state to what extent it exists. To meet it the Council propose to erect 36 houses. There are many cases of overcrowding. The general standard of housing is fair.

**EAST KERRIER R.D.** Dr. J. Blamey reports that the district is essentially a rural one, containing no town within its borders.



**Water Supply.** The water supply of the district is exceptionally good. The collecting area for the Falmouth Waterworks is in this district and considerable attention is given to preventing pollution. This danger arises from human habitations upon the collecting area.

Part of the parishes of Budock and St. Gluvias receive a constant supply from the Falmouth Waterworks Company. In previous reports attention has been called to the need for an extension of the water supply in Mawnan Smith to the eastern side of the village. All the conveniences in connection with this supply are at present on the western side. The Carlidnack supply is a good one but for the majority of the houses it is at too great a distance; in dirty and wet weather the inconvenience of such a supply must be great. At Flushing the supply is good in quality and quantity.

**Rivers and Streams.** The river in Budock is polluted by sewage from both Budock and Penryn at the point of its discharge into Penryn harbour.

**Drainage and Sewerage.** Most of the villages have drainage of some kind dealing with certain parts of the village, the pipes emptying into settling tanks which are emptied at intervals, or in some places discharging their contents over a field, but none have one main sewer to take in the whole village.

**Closet Accommodation.** The prevailing type is privy midden, and every effort should be directed towards the substitution of pail or earth closets for the old type.

**Offensive Trade.** There is one offensive trade in the parish of St. Gluvias, a gut cleaning industry. This is so situated that it can be of no offence to anyone.

**Infectious Diseases.** There were 39 cases of Diphtheria, chiefly in Constantine, a continuation, of an epidemic which began in 1915. There is no Isolation Hospital although there is a site for which a rent is paid yearly.

**Housing.** There is a certain shortage of houses which it is proposed to meet by the erection of 69 new houses. There are some cases of overcrowding. 22 houses were found to be unfit for human habitation.

**HELSTON R.D.** Dr. F. Chown reports:—

The north part of the district was formerly the seat of a prosperous tin mining industry but is now mainly dependent upon agriculture.



**Hospital Accommodation.** The district contains no hospital and patients requiring hospital treatment have to travel to Redruth, a distance of 20 miles from the Lizard and St. Keverne, and medical cases are not admitted.

**Water Supply.** Praze and Crowan Churchtown are supplied by the Camborne Water Company, which derives its supply from springs near Black Rock in this district. Porthleven and Sithney and part of Wendron obtain water from the Helston and Porthleven Water Company. With these exceptions the district obtains its water from wells, springs, and disused mine adits.

**Drainage and Sewerage.** Porthleven and Coverack are drained by a water carriage system. With these exceptions the villages are either without drains or have a slop water drain which empties on to land or into a cess pit. The old wet privy pit is far too common. During recent years pail closets are greatly replacing the pits.

**Scavenging.** The Council employs a contractor at Porthleven and at Coverack. Elsewhere tenants usually dispose of their house refuse in their gardens.

**Housing.** In this respect the district is no better and no worse than its neighbours. The Council have prepared a housing scheme under which they propose to erect 108 houses during the next three years, and they propose starting immediately with eight houses at Mullion, eight at Coverack, 10 at Porthleven, and eight at Praze.

**LISKEARD R.D.** Dr. W. Nettle gives a very full report on the sanitary conditions of the various parts of the district.

**Water Supply.** (1) Upland surface water from the moors. (2) Springs and deep wells. (3) Shallow wells. The water from the latter is liable to surface pollution and Dr. Nettle considers that no sanitary authority should be content with a water supply from such a source.

**Drainage and Sewerage.** Several of the towns and larger villages are drained by a system of sewers by which the sewage is conveyed to the sea or is carried on to the land and disposed of by irrigation. There are still a number of privies in the smaller villages and hamlets and are a cause of nuisance.

**St. Neot Village.** 47 houses. The water supply is from a public shoot and is good in quantity and quality. A number of the inhabitants, however, have a long distance to go in order to fetch water and this causes them much inconvenience.



**Pensilva.** 172 houses. The water supply is from deep and shallow wells with pumps and windlass attachments. It is extremely inconvenient for a large number of the inhabitants, especially the elder ones, to have to go some distance into other people's premises in order to fetch their supply. And in a large village like this where the majority of the houses have earth or cesspit closets in their gardens, there is a great risk of the water in the various wells being polluted. The village is only partially sewered. A large number of the houses were damp, partly caused by defective eaves gutters, and in some cases by no gutters at all. Dr. Nettle is strongly of opinion that complete water and drainage systems are required for this large village.

**Polperro.** One half of the town is in Lansallos parish. This part is supplied with water from a public tap. There is a public closet for men. The majority of the houses use buckets on the earth principle, which are discharged into the river, which immediately runs into the sea. The other half of the town is in the parish of Talland. Water is obtained from standpipes at intervals throughout the town. The sanitary arrangements are similar to those for the other part of the town. Many of the older houses are out of repair.

**Housing.** The estimated shortage is 171. A scheme is in preparation for the immediate building of 171 new houses. Overcrowding exists to a certain extent in the larger places like Polruan and Polperro. The general standard of housing in the district is fair. A number of the houses are small and many of them are old and consequently need repairing frequently.

**Tuberculosis.** A Tuberculosis dispensary is much needed in the district.

**Infectious Diseases.** There is no Isolation Hospital but the Council are, in conjunction with the Liskeard Town Council and the Callington and Looe Urban District Councils, about to build one near the town of Liskeard.

**REDRUTH R.D.** Dr. C. Rivers reports:—

**Principal Occupations.** Tin mining, which includes both surface work and work below ground, work connected with tin mining and agriculture, are the chief occupations of the inhabitants. Most of the mines are very old and are not always carried on under perfect sanitary conditions. Some of the mines are wet, and the men work in the water with their feet inadequately protected. Many persons living in the district and



suffering from Miners' Phthisis contracted their illness not in Cornwall but in the mines of South Africa, California, or elsewhere abroad.

**Water Supply.** Illogan is fairly well supplied with water, chiefly from the Camborne Water Company. Portreath has a good water supply. Carnkie, Park Bottom, and Harris' Mill depend wholly on deep wells, consequently in the Summer their supply is often intermittent. The Council have unsuccessfully endeavoured to obtain a supply for Carnkie. The residents of Harris' Mill have petitioned the Council for a clean water supply and the Council have approached the Camborne Water Company to ascertain the cost of extending their mains to Harris' Mill and Park Bottom.

St. Day has practically no water. Water is brought by a water carrier from Vogue shoot and sold in the street at a half-penny a pitcher. A scheme for bringing water from Redruth Highway has long been in existence but the probability of its being carried into effect seems now more remote than ever. Gwinear is not well supplied with water.

**Drainage and Sewerage.** There are no sewers in the district and there is no system of drainage except that at Pool about 200 houses, at Tuckingmill about 140 houses, and at Portreath about 120 houses are each connected with a sewer that empties via the Red River into the sea. At Lanner about 70 houses drain into a stream which discharges into the Restronguet Creek at Bissoe. At St. Day the drainage is both unsatisfactory and insanitary.

**Redruth and Illogan Sewerage.** The Redruth sewage collects into two tanks at Tolgus, and the overflow is discharged into trenches. About once a month the tanks are emptied and the solid contents conveyed more or less slowly along the stream to Portreath making the air foul with its noxious odours for the whole length of its course. At Bridge the stream is joined by the Illogan stream from Carnkie which carries more sewage. A scheme for carrying the sewage through a tunnel into the sea is still sub judice.

**Bacteriological and Chemical Work.** The Council opened a Laboratory for bacteriological and chemical work in 1917. All the work of this nature arising during the year was carried out in this laboratory with the exception of an analysis of water. Work is also undertaken for other Councils.

**Housing.** There are a few vacant houses at Gwennap, but many houses here and elsewhere in the district, though tenanted, hardly comply with modern ideas of ventilation and



sanitation. At Illogan, Stithians and Gwinear there is a shortage of houses. The total number of houses required in the district might be fairly estimated at 20 provided some of the existing houses were made more habitable.

The general standard of housing in the district is not of a high order. There are at least 1,600 houses without drains. 294 houses are built back to back. There are 416 houses without through ventilation, and 309 without ventilation on the first floor. In Gwennap and Illogan 413 houses are damp, 120 have no launders to the roof, and in 156 there is but one closet between two tenants. The conditions in regard to water supply, closet accommodation and refuse are not very satisfactory.

**ST. AUSTELL R.D.** Dr. Cameron Gibson reports up to the 17th October, 1919, and Dr. E. G. Andrew for the remainder of the year.

**Water Supply.** The Council supply the villages of Tywardreath, St. Blazey, Par, Bugle, Penwethick, and the Mount Charles special drainage area. In St. Stephens parish there are several private supplies; Nanpean has two supplies and part of Foxhole has one; Trelion has a small supply; Grampound has an efficient gravitation scheme. Apart from these places the district is generally dependent on wells and pumps. The larger supplies are found unequal to the demands towards the end of an average Summer. There was shortage in Bugle, Tywardreath, St. Blazey, and Mount Charles.

The water supply in the middle part of St. Stephens parish, St. Stephens Churchtown, High Street, and Lanjeth is very unsatisfactory. Mevagissey and Pentewan are also in need of improvement in their water supply.

**Rivers and Streams.** Owing to the absence of proper drainage schemes the pollution of streams has assumed a serious aspect in St. Blazey and Par, Bugle and Mevagissey.

**Drainage and Sewerage.** Tregonissey, Slades, Mount Charles, and Charlestown are drained and sewered, most of the drainage being discharged into the sea at Charlestown, while part of Mount Charles sewage is irrigated over land at Watering Lane. The village of Grampound is sewered into the River Fal. Besides the villages mentioned above as polluting streams, difficulty occurs in others where house drainage finds its way to the water channels at the sides of the roads. This occurs at Roche, St. Dennis, Nanpean, Foxhole, Carpella, St. Stephens Churchtown, and St. Blazey Gate, at all of which considerable nuisance sometimes occurs.



**Housing.** Much overcrowding has been revealed during the house to house inspection.

**ST. COLUMB MAJOR R.D.** Dr. Sutherland McMahon in his report calls attention to the following defects.

**Drainage.** The drainage at Trevone most urgently calls for attention. A very sad state of affairs exists there, especially during the Summer months. Summercourt, Newlyn East and Queens also call for attention in this matter. There is no system of drainage in operation in either of these parishes.

**Water Supply.** The water in St. Columb town is excellent in quality but totally inadequate for the town's requirements especially during the Summer months when it is found necessary to cut off the supply at most inconvenient times. Various schemes have been proposed for augmenting the supply but none have been adopted. When the new houses are erected the position will be serious.

**Housing.** Hardships are experienced throughout the district owing to the dearth of houses.

**Isolation Hospital.** Four cases of infectious disease were removed to the Isolation Hospital.

**ST. GERMANS R.D.** Dr. R. T. Meadows, D.S.O., reports:—

**Water Supply.** The following villages have piped supplies:

Antony. Satisfactory.

Kingsand. From Springs with 2 reservoirs. Great complaint and insufficiency.

Millbrook. Complaints of short supply.

Cawsand. From springs, with an inadequate reservoir.

St. Germans. The upper parts of the village have been without water for weeks, a contributory cause being leakage.

Downderry. Supply good.

Tideford. This has been added to during 1919.

St. Stephens. Constant supply from Dartmoor through Plymouth and then Saltash pipes. Not satisfactory. In the higher parts they are without water for hours at a time, while at night the pressure is abnormal.

In other villages the supply is from public or private wells.



**Drainage and Sewerage.** The following villages have a sewerage system :

Antony. Piped sewers discharging in field: the disposal is not satisfactory.

Landrake. Piped sewers to settling tanks and irrigation.

Millbrook. Pipe sewers, outfall tank and untreated discharge into tidal waters at lowest tide mark.

Kingsand. Some piped sewers and some sewers masons' drains. The outfall is into the sea. The whole condition is absolutely bad.

Cawsand. Piped sewers with outfall to the sea. The outfall is quite unsatisfactory.

Downderry. Modern piped sewerage with outfall discharging into the sea.

Tideford. Piped sewers with settling tank; effluent taken to tidal stream.

St. Stephens. Modern piped sewerage system with septic tanks, filter beds, and effluent to tidal waters.

Crafthole. Piped sewers discharging into cesspits. This discharge is not satisfactory.

The villages without sewerage system are: Hessenford, Quethiock, Pillaton, St. Mellion, St. John's, Cargreen, and St. Germans. Among these St. Germans is that one towards which the Council should devote its attention. With a water supply but no sewerage the condition is not what should be expected in a village of this size.

**Scavenging.** In 3 villages only is house refuse collected, viz., Kingsand, Cawsand, and Millbrook, where it is collected daily. Complaints come from St. Stephens on this account, there being no arrangements made by the Council for the removal of their refuse.

**Housing.** There is considered to be a shortage of 227 houses for the working classes. Steps are being taken to erect 132 houses in the parts most requiring them. Overcrowding exists to a certain extent, especially in Millbrook, and it is estimated that there are 180 houses occupied by more than one family without being adapted for such. In the Millbrook area this is most pronounced. Generally speaking the standard of housing is not good, and in many parts of the agricultural districts decidedly bad.



**STRATTON R.D.** Dr. E. L. Meynell in his report draws special attention to:—

**Water Supply.** The question of the water supply of Kilkhampton needs consideration as many of the wells run dry. In dry weather water has to be carried long distances.

**Housing.** 84 houses are to be provided on 17 sites.

**TRURO R.D.** Dr. T. M. Bonar reports:—

**Housing.** A scheme for the erection of 160 new houses has been adopted and approved by the Ministry of Health.

**Scavenging.** Scheme for Chacewater urgently needed. Mount Hawke, Perranporth and St. Agnes are in need of improvements.

**WEST PENWITH R.D.** Dr. J. R. M. Richmond reports:—

**Water Supply.** Carbis Bay, Lelant, Gulval Churchtown, Long Rock, Goldsithney, Sancreed Churchtown and Drift, St. Buryan Churchtown, Porthcurnow, Sennen Churchtown, Sennen Cove, Morvah, Zennor, Towednack and Nancledra have more or less satisfactory supplies, but the following are reported to be unsatisfactory:—

St. Hilary. Very badly supplied, some people having to fetch water from three-quarters of a mile away.

Perranuthnoe. From rain-water tanks, an unsatisfactory source of supply.

Marazion and St. Michael's Mount. From an adit piped to a reservoir thence to houses and stand-pipes. The supply is as a rule insufficient in Summer to the higher parts of the town.

**Rivers and Streams.** The river between Relubbas and St. Erth is now in a more satisfactory state. The Tremenheere and Ponsandane brooks are to a great extent polluted from refuse water at Long Rock and Gulval.

**Drainage and Sewerage.** Most of the larger villages are supplied with a slop water drainage system, discharging on to land or into streams. That for Carbis Bay is reported to be unsatisfactory and cannot be dealt with until the water scheme now under consideration is completed.

**Refuse Disposal.** The dumping over cliffs previously reported has greatly decreased.



**Housing.** House accommodation is generally in a fair condition although there are houses within the district which do not meet with modern requirements. New houses will be required if there is no diminution in population but there are signs of migration which may cause a reconsideration of the housing question.

**Isolation Hospital.** There is no hospital accommodation for cases of infectious disease. The Council have approached the urban authorities which are situated in the West Penwith Rural District with a view to forming a combined scheme but without result. No central place can be selected unless in an urban district.

### PORT SANITARY AUTHORITIES.

**FALMOUTH & TRURO P.S.A.** Dr. J. Sydney Hicks reports :—

During the year 181 visits were paid to vessels. The diseases met with were principally Injuries, 68 ; Influenza and colds, 52 ; Venereal, 46 ; Malaria, 19 ; Rheumatism, 19 ; Lungs, 16 ; and Enteric Fever, 11. The Enteric Fever cases were admitted to the Isolation Hospital.

During the year the Sanitary Inspector has visited 1,653 vessels. There were very few sanitary defects and these were promptly remedied by those in charge of the vessels.

**FOWEY P.S.A.** Dr. W. H. Boger reports :—

305 coastwise and 356 foreign vessels entered the harbour during the year, a total of 661 and a tonnage of 255,605. 573 vessels were inspected and 100 were found to have defects requiring attention. There was a severe outbreak of Influenza among the crews, one Japanese vessel having 40 cases. The cottage hospital being full, the Isolation Hospital was opened.

The Sanitary Inspector visited 631 vessels. 88 were found to be dirty and 19 defects were remedied before the vessels left the port.

**PENZANCE P.S.A. (PENZANCE DIVISION).** Dr. W. R. Wilson reports :—

The Ports in this Division are Penzance Harbour and Docks, Newlyn Harbour, Mousehole Harbour, and the Harbour of St. Michael's Mount.



The following shipping entered the Port :—

Penzance Harbour: 23 foreign, 273 coastwise, and 64 fishing vessels—total 360.

Newlyn Harbour: 3 foreign, 5 sailing, and 127 fishing boats.

13 cases of sickness were reported. Rats were not found on the vessels.

**PENZANCE P.S.A. (HAYLE DIVISION).** Dr. Z. Belling Mudge reports :—

During the year there has been no serious or epidemic disease among the sailors at the Port. 24 vessels were visited; no nuisances were found.

The total number of vessels entering the Port was 205. Of these 70 were visited by the Sanitary Inspector and the nuisances found were promptly remedied. An Isolation Hospital is urgently needed.

**Rats.** The Rat Order is being prosecuted with vigour with satisfactory results. At the refuse depot many were killed.

### **MATERNITY AND CHILD WELFARE.**

The County Council are the Authority under the Notification of Births Acts for the County with the exceptions of the boroughs of Penzance, Falmouth and Launceston. The notifications are sent direct to the County M.O.H. who arranges for the visits of the Health Visitors.

Under the County scheme nearly all the nurses of the County Nursing Association, some of the nurses of the unaffiliated nursing associations, and the equivalent of three whole-time nurses act as Health Visitors. For the sake of convenience and to prevent overlapping of work, six whole-time nurses give half time to health visiting and half to school work. There are about 130 nurses engaged in the work of health visiting.

During the year 3,965 births were notified by nurses and medical practitioners in the area included in the County scheme. 424 births were not notified and information of the births was obtained from the registrars. Arrangements were made for the births to be visited by a Health Visitor and kept under observation when necessary.

There are no Maternity and Child Welfare Centres under the control of the County Council but there are the following voluntary Centres :—



Camborne Infant Welfare Centre.  
 Heamoor (Llandithy Hall) Infant Welfare Centre.  
 „ (St. Thomas Vestry) „ „ „  
 Truro Baby Welcome.  
 Wadebridge Mothers' and Babies' Welcome.  
 Morval „ „ „  
 St. Blazey Infant Welfare Centre.  
 St. Austell „ „ „  
 Liskeard „ „ „

There are also Centres in Penzance, Falmouth and Launceston.

The whole time Health Visitors assist the Maternity and Child Welfare Centres by talks and lectures to mothers.

There is a voluntary scheme for dealing with unmarried mothers and their infants. Under the Truro Diocesan Women's Committee for Preventive and Rescue Work, there is The Maternity Home, Mount Prospect, Redruth, where girls are received before confinement and are passed on when their babies are about one month old to the Home at St. Agnes. 24 girls were confined during the year. There are 6 beds.

At the Rosemundy House, St. Agnes, there is accommodation for 25 babies, 12 nursing mothers, and staff. During the year 36 babies passed through the Home. The average duration of stay was for mothers 10 months, and for babies 2 years. These Homes have no definite connection with the Council scheme.

Still-births and infant deaths in the practice of the midwives are enquired into by the Inspectors of Midwives, and the necessity of obtaining medical advice emphasised when necessary.

**Co-ordination with school medical service.** All this work is undertaken by the same staff and the schedules of the children reaching the age of 5 years will be available for the School Medical Officers in due course.

**Emergency Nurses.** The Council have appointed, through the County Nursing Association, 3 Emergency Nurses. The services of these Nurses are available in emergency for the nursing of expectant mothers, maternity nursing, the nursing of women suffering from Puerperal Fever, the nursing of infants suffering from Ophthalmia Neonatorum, and of children under 5 years of age suffering from Measles, Whooping Cough, Epidemic Diarrhoea, or Poliomyelitis. When not otherwise engaged these Nurses are engaged in midwifery and district nursing, the fees received for this work relieving the expenditure of the Council.



Most of this work is undertaken by the district nurses and it is only in special cases that the Emergency Nurses are likely to be required for this special work. Very little demand has been made for these special services during the year, but it is important to have them available when required. Their work in Midwifery is very important even when they are not required for special work.

The attention of all medical men, and especially of Medical Officers of Health, has been called to this provision. The treatment of the diseases mentioned is undertaken by the medical practitioners with the help of the district nurses, and seems to be successful.

The following diseases were notified :—

	Notified.	Deaths.
Puerperal Fever	9	3
Ophthalmia Neonatorum	28	-
Measles	1,550	14
Epidemic Diarrhœa	-	42
Poliomyelitis	24	8

As regards the cases of Ophthalmia Neonatorum, all the cases are reported to have recovered without any permanent injury to either eye.

The treatment of Poliomyelitis is generally rather unsatisfactory. Under ideal treatment, treatment of rather a special nature, there should be much less deformity and contractures. There is no special provision for such cases.

**Supply of Milk for necessitous Mothers and Children.** The County Council undertake this work in the area of the County included in their scheme. During the year the Council approved of a "scale of necessity." The scale is not public but is issued to Medical Officers of Health as an indication of what the Council consider a necessitous person. It is not expected that the scale will be followed in every instance as the Medical Officers of Health decide each case on its merits. The Council decided that they would only pay for milk if the order was signed by a Medical Officer of Health on one of the forms provided by the Council, and a form giving particulars of the case sent to the County M.O.H. for the information of the Council. In this way the valuable help of many of the Medical Officers of Health in the County is secured and the Council is able to see how the money is expended. The bills for the milk are sent by the milk retailers direct to the County M.O.H. together with the order



for the supply. During the year the sum of £256 11s. 9½d. was expended, but the present expenditure is at the rate of about £800 a year.

**Midwives.** The majority of the midwives in the County are nurse-midwives employed by the County Nursing Association. As a whole the County is well supplied; the exceptions are the sparsely inhabited rural districts where it is difficult to start nursing associations. To encourage the starting of such nursing associations in unnursed districts the County Council make a grant of £250 per annum, provided that five fresh nurse-midwives are established in the County. During the last few years the great difficulty has been in obtaining suitable women to be trained as nurse-midwives. Had it not been for this difficulty the whole of the County would have been now supplied with midwives. No doubt this difficulty is very largely due to the fact that the salaries paid to nurse-midwives are insufficient to render the service attractive, and to meet this difficulty the Council in February, 1920, passed the following resolution, which has been approved by the Ministry of Health:—

“Resolved, subject to confirmation by the County Finance Committee, to make a grant for the first year to the County Nursing Association at the rate of £15 per Nurse-Midwife, on the understanding that grants should only be made to District Nursing Associations if the minimum salary of their Nurses is £100, and that the Association shall furnish the Council with definite statements as to how each grant from the Council is expended. Also that the County Nursing Association should make a scale of fees applicable to each district and that no grant should be paid to a District Nursing Association not adopting the scale.”

This will entail an expenditure of about £2,000.

The following rural parishes are without midwives—

**Bodmin Rural District.**

	Population 1911.		Population 1911.
Egloshayle	430	Helland	209
Lanivet	970	St. Endellion	1049
Temple	31	Warleggan	216

**Launceston Rural District.**

Boyton	286	Egloskerry	366
Laneast	185	St. Thomas the	
Tremaine	80	Apostle Rural	237
Tresmeer	191	Treneglos	131
Warbstow	344	Trewen	108



**St. Germans Rural District.**

	Population 1911.	Population 1911.
Quethiock	407	

**Liskeard Rural District.**

Linkinhorne	1450	St. Ive	1267
St. Veep	487	South Hill	444

**St Columb Major Rural District.**

Crantock Rural	308	Little Petherick	175
St. Ervan	265	St. Breock	730
St. Issey	441	St. Eval	205
St. Wenn	378	St. Merryn	464

**Truro Rural District.**

Cornelly	79	Cuby	134
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**West Penwith Rural District.**

St. Buryan	1286	St. Levan	781
Sancreed	805	Sennen	644
Zennor	294	St. Michael's	
Morvah	105	Mount	74

Thus there are 37 rural parishes without a resident midwife, with a population of about 16,000.

The following urban districts are also unprovided with trained midwives:—

Pendeen (St. Just U.D.)  
 Newlyn (Paul U.D. & Madron U.D.)  
 Newquay U.D.  
 Looe U.D.

## REPORT OF INSPECTOR OF MIDWIVES FOR THE YEAR 1919.

The average number of Midwives working in the County throughout the year was 145, as follows:—

1.	Trained Midwives working under Associations:—		
	(a)	Under County Nursing Association	101
	(b)	Under Independent Associations	9
			110
2.	(a)	Trained Midwives working on their own account	14
	(b)	Trained Midwives notified to take cases in emergency on their own account	6
			20
		Total Trained	130



3. Bona-fide Midwives (untrained) holding certificate in virtue of practising before the Midwives Act came into operation	...	15
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Total Trained and Untrained	145
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The trained midwives are of four classes, viz:—

(a) Midwifery training only	...	15
(b) Holt Ockley system (less than one year's training)	...	5
(c) Village Nurses (one year's training in general midwifery)	...	90
(d) Three years' Hospital and Midwifery training	...	20
Total		130

The total number of midwives who notified their intention to practise during the year was 174, trained 156 and bona-fide 18.

Of the 156 trained midwives, 26 were engaged temporarily for holiday and emergency work, leaving 130 working generally. Of the 18 bona-fide midwives, two died and one left the County.

34 trained midwives resigned and one died. The resignations were due to the following causes:—

Better appointments in other Counties	9
Home duties	8
Married	8
Ill health	5
To take private (monthly) nursing	2
To work on their own account	2

The total number of cases attended during the year shows an increase in those attended by trained midwives and a decrease in those attended by bona-fide midwives.

	1918.	1919.	Increase.
Cases attended by trained midwives	2,610	2,982	372
„ „ untrained „	217	171	46

Cases attended by midwives under the C.C.N.A.

(a) As midwife 1,332 (b) As nurse 1,065 Total 2,397

Cases attended by midwives under Independent Associations.

(a) As midwife 82 (b) As nurse 68 Total 150

Cases attended by midwives working on their own account.

(a) As midwife 252 (b) As nurse 183 Total 435

Cases attended by bona-fide midwives.

(a) As midwife 75 (b) As nurse 96 Total 171



During the year 548 inspections were paid to midwives and 83 special visits of enquiry, an average of 4 inspections to each midwife.

**Summary of work done by and records received from all  
Midwives during 1919.**

	Trained.	Bona-fide.	Total.
Number of cases attended	2,982	171	3,153
(a) As midwife	1,666	75	1,741
(b) As nurse	1,316	96	1,412
Number of times Doctor sent for	225	6	231
(a) For mother	175	6	181
(b) For child	50	-	50
Number of Stillbirths	99	4	103
(a) As midwife	44	3	47
(b) As nurse	55	1	56
Number of deaths of mother	11	-	11
(a) As midwife	4	-	4
(b) As nurse	7	-	7
Number of deaths of child	61	-	61
(a) As midwife	4	-	4
(b) As nurse	57	-	57
Number of times last offices performed	41	-	41
(a) Own patient	32	-	32
(b) In emergency	9	-	9
Number of times in contact with infection	18	-	18
Notifications of artificial feeding	47	-	47

There is still a shortage of certified midwives for the rural districts of Cornwall. In some isolated districts uncertified women have been found practising without a doctor and have been cautioned.

The difficulty lies in getting trained midwives to stay any length of time in the lonely isolated areas, many find the cycling impossible, and there has been great discontent with the salaries offered. With the offer of adequate salary and better provision made for lodging there is every hope of getting a better supply.

There are more women going in for training during the year 1920.

(Signed) M. RIDEN,

Inspector of Midwives.



## PUBLIC HEALTH (VENEREAL DISEASES) REGULATIONS, 1916.

There are two Treatment Centres especially convenient for patients from Cornwall, one at Camborne and one at Plymouth.

**Camborne Treatment Centre.** This is open on Thursday afternoons, for men at 2 p.m. and women at 3.30 p.m. This is a special Treatment Centre managed by the County Council. Three beds are available at the Treatment Centre. The Medical Officer during the year was Dr. G. L. Preston but the present Officer is Dr. C. Rivers.

**Plymouth Treatment Centre.** This Centre is at a general hospital, the South Devon & East Cornwall Hospital, the Committee of which have entered into an agreement with the Councils of Plymouth, Devon and Cornwall. The total expenditure at the Treatment Centre is repaid to the Hospital by the Councils concerned, the payment made by each Council being in proportion to the attendances of patients from the area compared with the aggregate attendance from all the areas.

At this Treatment Centre there is a whole time Medical Officer, Dr. G. D. Kettlewell. The following are the times for the out-patients:—

Males.		Females and children.	
Monday	6—8 p.m.	Wednesday	6—8 p.m.
Tuesday	10—12 noon.	Thursday	10—12 noon.
Wednesday	3—5 p.m.	Saturday	3—5 p.m.
Saturday	6—8 p.m.		

There are 8 beds available in the Hospital.

The following table gives the work at these Centres during the year:—

### CAMBORNE TREATMENT CENTRE.

(Opened in May 1919).

No. of persons dealt with during the year for Syphilis	29
"                    "                    "                    "                    Soft Chancre	4
"                    "                    "                    "                    Gonorrhœa	23
"                    "                    "                    "                    Conditions other than venereal	2



	M.	F.	Total.
No. of persons who ceased to attend the Out-patient Clinic:			
(a) Before completing a course of treatment	10	2	12
(b) After completion of a course of treatment, but before final test as to cure	18	2	20
No. of persons discharged from Out-patient Clinic after completion of treatment and observation	8	2	10
No. of persons still under treatment at end of year	13	3	16
Total	49	9	58
Total attendances of all persons at the Out-patient Clinic	184	24	208
Aggregate number of "in-patient" days for treatment		1	1

### PLYMOUTH TREATMENT CENTRE.

(Opened 8th March, 1919).

	No. from all areas.	No. from Cornwall.
No. of persons dealt with during the year for Syphilis	333	28
" " " Soft Chancre	9	3
" " " Gonorrhœa	188	17
" " " Conditions other than venereal	169	16
	699	64
No. of attendances at Out-patient Clinic	5,517	308
Aggregate no. of "in-patient" days for treatment	2,147	310

The Council and the Ministry of Health have approved of a Treatment Centre at Falmouth, and Dr. J. L. Lawry has been appointed Medical Officer. All arrangements were made for starting the Treatment Centre when the premises promised to the Council were refused and it has not been possible to secure other premises.



**Examination of Pathological Specimens.** This work is undertaken by Dr. W. L. Pethybridge of Plymouth. The necessary outfits for the collection and sending of specimens are supplied by the County Council.

During the year 335 doses of salvarsan substitutes were supplied to 14 medical practitioners in the County by the County Council. 144 outfits for the collection of specimens were supplied to 22 medical practitioners. 244 specimens were examined by the Pathologist (108 from the Camborne Treatment Centre and 136 from medical practitioners) and reports were sent to the medical men concerned.

(a) **Details of the Council's Scheme.**

(1) Two Treatment Centres are available, one at Camborne and one at Plymouth. In very exceptional cases the Council pay railway fares to these Centres.

(2) Arrangements are made with Dr. W. L. Pethybridge, of Plymouth, enabling any practitioner in the county to obtain, at the cost of the Council, a scientific report on any material submitted from a patient suffering or suspected to be suffering from venereal disease.

(3) Free supplies of Salvarsan substitutes are provided to practitioners qualified to receive them. In a previous year demonstrations were given on the use of the "neo" drugs and 61 practitioners are now qualified to receive these drugs. 24 practitioners are qualified to receive any Salvarsan substitutes.

(4) Contributions are made to the County Branch of the National Council for Combating Venereal Diseases.

(b) **The extent to which the scheme has been already developed.** It is proposed to open a Treatment Centre at Falmouth as soon as premises are available. No other extension is contemplated at present.

(c) **The adequacy or otherwise of the provisions made.** One of the objects of the Public Health (Venereal Diseases) Regulations, 1916, was to provide free treatment to all patients. In a town where there is a Treatment Centre this result is obtained. It is obvious that it cannot be obtained in rural districts unless all travelling expenses are paid and compensation given for loss of wages due to absence from work. For a patient to go any distance to a Treatment Centre takes up a whole working day. Even a very large number of Centres would not obviate this difficulty in rural areas.



(d) **The lines on which the scheme needs to be extended or modified as the result of experience.** The present arrangements are very unsatisfactory. A patient may attend a distant Clinic for Salvarsan treatment although he may be living close to a medical practitioner quite able and willing to undertake the treatment if arrangements could be made for payment. The neo drugs are easily used intravenously, and there is some prospect that suitable drugs will be available for intramuscular injection without causing pain. So far the difficulty with intramuscular injections has been the pain following their use. Once this difficulty is removed there seems to be no reason why all medical practitioners should not be supplied with free Salvarsan substitutes for intramuscular injections. In this way much of the expenses of the Treatment Centres would be avoided. One such preparation has just been placed on the market. There will remain some special cases of Syphilis requiring treatment as "in-patients."

As regards Gonorrhœa, the present method of treatment requires daily irrigation. It is of course quite impossible for patients to travel long distances to an irrigation centre. Here again the ordinary routine treatment should be in the hands of the general practitioner, cases being referred to a specialist at the Treatment Centre for examination as required. It is true that in the past the routine treatment of Gonorrhœa by general practitioners has been unsatisfactory as regards a permanent cure, but this was entirely owing to the fact that the effect of infected follicles and glands was not understood. Few medical men can use an urethroscope or a Kollmann, and the use of these may be necessary before a cure can be effected.

In rural areas at any rate more use should be made of the services of the medical practitioners. The difficulties seem to be (1) the method of payment, and (2) the difficulty of any form of supervision.

(e) **The extent to which the co-operation of the medical profession has been obtained.** The following circular has been issued to the medical practitioners in the county:—

" County Hall,  
Truro,  
May, 1919.

Dear Sir,

May I draw your attention to the facilities the County Council are providing for dealing with cases of Venereal Disease.

At the South Devon & East Cornwall Hospital, Plymouth, the duties of the Medical Officer, Dr. Kettlewell, include the



giving of demonstrations and granting consultations to medical practitioners attending the Clinic; he will also furnish a report to general practitioners in cases where further treatment can be carried out by the patient's own medical attendant.

A treatment centre has been opened at Tuckingmill Dispensary, near Camborne, at which Dr. Rivers attends every Thursday and where he will be glad to see any cases you may wish to refer to him for examination, opinion or treatment. Your presence at the Clinic will be welcomed at any time and the Medical Officer will be glad to afford you any information or assistance in his power. A nurse is attached to the Clinic and a few beds are available at the discretion of the Medical Officer of the Clinic.

**Travelling Expenses.** As regards patients who are advised by their own doctor to attend the nearest Clinic and the patients plead that they are unable to pay the railway fare, the patients should be referred to the County M.O.H., or, with the patient's consent, the doctor might himself write to the County M.O.H. and state whether in his opinion the case was one in which the railway fares should be paid by the County Council. The funds for this purpose are strictly limited.

**Pathological Examination.** A circular on the facilities for obtaining free pathological examinations has already been forwarded to medical practitioners in the county. Further copies can be obtained from the County Medical Officer.

Yours truly,

E. M. CLARKE,

County Medical Officer."

Patients are referred to the Treatment Centres by medical practitioners for examination and treatment.

It is difficult to express an opinion as to the extent of the co-operation without knowing how many cases consult medical practitioners. Certainly some cases of Syphilis are treated by Mercury without the possibility of obtaining better treatment being mentioned to the patient. Usually, however, medical practitioners are quite ready to refer cases to the Clinics for treatment, especially Salvarsan treatment.

(f) **The readiness or otherwise of patients to avail themselves of the facilities provided for diagnosis and treatment.** Far more patients attend the Treatment Centres considering the difficulties of distance and time than was expected. One important matter is that patients cease to attend the Treatment Centres before cure is complete. This has been noticed through-



out the country and is not peculiar to Cornwall. Even then cases treated with a few injections of Salvarsan for Syphilis are unlikely to spread the infection to others, although the same cannot be said of cases of Gonorrhœa incompletely cured. Here the danger of spreading the disease is very considerable.

Gonorrhœa is a disease which it is much easier to prevent than to cure, and unless some quicker method of cure can be found there will always be this failure to persuade patients to attend until quite cured.

**Irrigation of cases of Gonorrhœa during the intervals between the Clinics.** It is obvious that no arrangements could be made for county patients. Arrangements are made for daily irrigation at the Plymouth Clinic, and no doubt in a large town where a number of patients can attend in the evening for irrigation, excellent results will be obtained. Unless medical practitioners can arrange for the daily irrigation of county patients nothing can be done. Only very few cases could possibly attend Camborne Treatment Centre daily.

No arrangements have been made for the disinfection of persons who have been exposed to the risk of infection. Although it seems desirable that efficient means of disinfection should be available, they could be obtained from chemists in the ordinary way. It is difficult to see how the Council could disseminate information on this subject to young persons. It is not for a Council to suggest to young persons that immorality can be made safe. Parents should be responsible for the giving or withholding of this information.

**Venereal Disease Act, 1917.** No action has been reported.

### **TUBERCULOSIS.**

Chief Tuberculosis Officer	-	DR. C. ROPER.
Assistant Tuberculosis Officers		Dr. W. F. L. DAY. DR. P. J. BODINGTON.

### **Dispensaries.**

Penzance	Thursdays	West Cornwall Infirmary, Penzance.
St. Austell	Fridays	Aylmer Place, St. Austell.
Tuckingmill	Tuesdays	Penlu Terrace, Tuckingmill.
Truro	Wednesdays	Royal Cornwall Infirmary, Truro.

(Started 29/10/19).



During the year the following cases were seen by Drs. Roper and Day :—

Dispensary.	New Cases.	Consultations.	Nurses' Visits.
Penzance	80	638	948
St. Austell	112	486	764
Tuckingmill	133	861	637
Truro	10	53	146

### Discharged Tuberculous Sailors and Soldiers.

	1st Quar.	2nd Quar.	3rd Quar.	4th Quar.
Number on Register	400	438	465	525
Number reported on	387	420	453	505
Dead	55	56	70	75

The following gives the number of cases seen during the year compared with the years 1918 and 1915 :—

	New cases at Dispensaries.	Re-examinations & consultations at Dispensaries.	Cases seen at places other than Dispensaries.
1915	321	1,867	196
1918	416	2,488	311
1919	335	2,038	321

**Tehidy Sanatorium.** The first cases were admitted to the Sanatorium on 21st February, 1919, one ward with 9 beds being ready at that date and a further ward being almost ready. Unfortunately a fire on 25th February practically destroyed the main block and further patients could not be admitted until the erection of huts later in the year.

The number of patients admitted during the year was 28. Of these 8 were discharged and 2 died during the year. The number of beds available on 31st December, 1919, was 20. Service men have the first claim on the beds and insured men the second claim. At a later date provision will be made for all cases, men, women, and children.

The present number of beds is 20 and it is expected that this number will be increased to 32 shortly. Dr. P. J. Bodington has recently been appointed resident Medical Officer of the Sanatorium.

The premises taken for starting a Dispensary at Liskeard are not yet available as the tenant has not been able to obtain another house.



(a) **Details of the Council's scheme.** The Tuberculosis Officers may be requested to examine persons suffering or suspected to be suffering from tuberculosis in one of the three following ways:—

(1) Dr. Roper is the medical adviser to the National Insurance Committee and all patients recommended by panel doctors for sanatorium benefit are referred to him for examination and report.

(2) A circular has been sent to every medical practitioner in the County as follows:—

“ County Hall,  
Truro.  
May, 1918.

Dear Sir,

May I draw your attention to the facilities the County Council are affording to Medical Practitioners for dealing with cases of Tuberculosis.

Dispensaries have been opened at Penzance, Tuckingmill, and St. Austell at which the Tuberculosis Officer attends, and where he will be glad to see any cases you may wish to refer to him for examination or opinion, and where any uninsured patients who may, in your opinion, be unable to pay for their treatment can receive the necessary drugs and advice.

Insured persons must apply for their treatment to the Insurance Committee, as hitherto, but doubtful cases may be sent first to the Tuberculosis Officer for an opinion, if desired.

Patients are seen on the recommendation of their Medical practitioners; it is advisable that a definite appointment should be made, and if you will kindly send the full name and postal address to Dr. Roper, Tregrayth, Kenwyn, Truro, and state whether the case is referred for an opinion only, or also for treatment at the Dispensary, Dr. Roper will then notify you and the patient of the date and time suggested for the appointment, at which your presence will be welcome.

Where it is not possible for the patient to visit a Dispensary, this fact should be noted, and some other place, such as your consulting room or the patient's home, suggested for the examination.

Your presence at any time at the Dispensary will be welcome, and the Tuberculosis Officer will be glad to afford you any information or assistance in his power.



A specially trained Nurse is attached to each Dispensary, and an important part of her duty is to visit patients in their homes, advise them as to the best means of arranging their accommodation, not only in the interests of the patient, but also to lessen the possibility of the infection of contacts, and to see that the general advice given is being carried out; the Nurse does not undertake any actual nursing of cases.

A certain number of Shelters are available for use, on the recommendation of the Tuberculosis Officer, where circumstances render them advisable, and sputum flasks are provided where necessary.

It is hoped that institutional treatment for suitable cases will be available at Tehidy in the near future, and that additional Dispensaries will be opened in other parts of the County, as soon as circumstances permit.

I am,

Yours truly,

E. M. CLARKE."

(3) The School Medical Officer may refer children to the Tuberculosis Officer for examination and report.

As far as possible patients are sent to one of the Tuberculosis Dispensaries for examination, but where it is more convenient the examination may take place in the patient's home or at the doctor's surgery. The Tuberculosis Officers do not undertake to examine "all comers" as is done, for instance, by the Medical Officers of Venereal Clinics; patients must be referred to them in one of the above ways.

**(b) The extent to which the scheme has been developed.** The original scheme included a large number of dispensaries and sub-dispensaries. It will probably be found that all these centres are unnecessary. The Liskeard Dispensary will be the next Dispensary to be opened. The provision of more beds at Tehidy is now being undertaken, a new administrative block is being built to replace the buildings destroyed by fire, and it does not seem possible to do more than is being done at present.

**(c) The adequacy or otherwise of the provisions made.** Experience will show whether more dispensaries are necessary. Most of the populous areas now have a dispensary. Where no dispensary is available patients are visited by car. It is only when a sufficient number of patients can be collected at a



dispensary that it is economical to have one, and in the sparsely populated districts of Cornwall it will continue to be necessary for the Tuberculosis Officers to visit individual cases by car.

The Sanatorium scheme can only be regarded as adequate when provision is made for men, women, and children. At present there is no sanatorium available for women and children in the County. Insured patients may be sent to Institutions outside the County, but uninsured persons are unprovided for. No provision is made for uninsured persons outside the County. This question will engage the attention of the Council when the present scheme for men is in working order.

**(d) The lines on which the scheme needs to be extended or modified as the result of experience.**

(1) Probably a smaller number of sub-dispensaries will be required, at any rate 'ad hoc' dispensaries.

(2) The original scheme provided for 60 beds at Castle-an-Dinas. These beds would only have been suitable for early cases, and it is now considered that a sanatorium should treat all kinds of cases, and this is proposed to be done at Tehidy.

**(e) The extent to which the co-operation of the medical profession has been obtained.** See circular to medical practitioners above. At first the advent of the Tuberculosis Officer was regarded with suspicion by medical practitioners in the County, and although most practitioners are now glad to avail themselves of the Tuberculosis Officers' experience, there are still some who seem to refuse their patients the benefit of consultation with an Officer specially experienced in diagnosing and treating Tuberculosis. The extent of the co-operation is steadily increasing.

**(f) The readiness or otherwise of patients to avail themselves of the facilities provided for diagnosis and treatment.** Patients seem quite ready to avail themselves of the facilities provided, and with greater co-operation of the medical profession more patients would like to consult the Tuberculosis Officers. We sometimes hear of a person who would like to consult the Tuberculosis Officer but evidently his own medical attendant is unwilling for the patient to have another opinion. In some cases where there can be no suggestion of Tuberculosis this action is justifiable but not in all.

**(g) The arrangements at the Dispensary for providing for home visitation, search for contacts, "after care" work, etc.**



There is a Tuberculosis Nurse attached to each Tuberculosis Dispensary. The home of each patient attending the Dispensary is visited by the Nurse, the home conditions are reported on, and enquiries made as to the health of the household. Arrangements are made to examine doubtful contacts if possible. The patient is kept under observation by the Nurse while attending the Dispensary.

### HOUSING.

Details of the housing requirements of the County have been given in the summaries of the reports of the District Medical Officers of Health.

The following is a summary of the returns given by the District Councils in Schedule VI. of the Housing Return D89 (houses required for the working classes) up to May, 1920:—

Cornwall: Gross need, 4,692; Net need, 4,407. No of houses in schemes, 3,340. This gives the need during the next 3 years as estimated by the District Councils, the net need being arrived at by deducting from the gross need the number of houses estimated as likely to be set free owing to a decrease in the population or built by persons other than the District Council. The number of houses submitted in the schemes are in some cases only instalments, and the local authorities will be required to supply a larger number. The above figures are not accepted as correct in all instances and "Inquiries" are being held by the Housing Commissioner when the returns seem unsatisfactory.

The estimated number of 3,340 is only half the estimated percentage thought to be necessary for the country as a whole, but in many of the districts in Cornwall the population is diminishing.

Up to 31st July, 1920, no houses were completed in Cornwall. 195 schemes have been submitted to the Ministry. Houses included in house plans numbered 1,188, of which 1,033 were approved; those included in tenders were 529, of which 521 were approved. The number of houses included in signed contracts was 364 and work had commenced on 124, viz., 28 at Falmouth, 20 at Launceston, 12 at St. Austell, and 64 in St. Austell Rural District.

The latest figures available show that the average cost of the "parlour" type of house is £996 and that of the non-parlour type £823. This is exclusive of the cost of land, road making, and sewerage.



## ISOLATION HOSPITALS.

There is the following provision in the County :—

District,	Estimated Population 1919.	Description.	No. of beds.
Camborne U.	14,944	A private house, built of stone ; was used in an Enteric Fever outbreak, and also for Small-pox. Only one disease can be treated at a time. No administrative or discharging block ; no laundry.	8
Falmouth B.	12,839	A wooden building containing 2 wards with 4 beds each, nurses' room, sitting room, and kitchen, all under one roof. Two diseases concurrently.	8
Newquay U.	4,839	Hospital at Trevenon in St. Columb R.D. A corrugated iron building on brick foundations. Two wards in one block, 4 beds in each. No drainage.	8
Penzance B.	13,741	A wood and iron building at Mount Misey, containing 2 wards with 6 beds in each, with nurses' sitting and bedrooms, and 2 single bedded wards between the larger wards. One disease at a time.	14
Redruth U.	10,776	In Redruth. Converted house.	Few
Stratton & Bude U.	3,270	A wooden hospital, consisting of a kitchen and scullery with 2 nurses' rooms and a store room at one end ; in the middle a ward with 6 to 8 beds, and at the other end an annexe with bath and w.c. Warmed by stoves. Jointly with the R.D. One disease at a time.	6-8
Truro City	10,761	An old stone building, converted, situated in the city. Scarlet Fever and Diphtheria, 2 diseases concurrently. No administrative or discharge blocks or disinfecting apparatus. Additional ward for 10 beds, with bath and lavatory accommodation recently completed.	15-25
Redruth R.	17,524	Situated at West Tolgus in Illogan parish. The building is a disused stone workshop at an old mine. Wards inter-communicating	14
St. Columb R.	10,838	Wooden bungalow situated at Castle-an-Dinas.	Few
Stratton R.	4,457	See Stratton & Bude U. Hospital used jointly by the two Councils.	—
Truro R.	19,747	A wooden and iron building at St. Agnes. Two diseases can be treated concurrently if nurse's room is used for a ward.	4-8



During the year Redruth Urban District Council have made provision for the isolation of a certain number of cases. Schemes are also proposed for St. Austell Urban and Rural Districts. Steps are being taken to build an Isolation Hospital for Liskeard Urban and Rural Districts and the Callington and Looe Urban Districts. An Isolation Hospital for Ludgvan and surrounding districts is likely to be considered soon, and also for West Penwith.

### **WATER SUPPLY.**

There is little change in the water supply, which is often unsatisfactory. Particulars are given in the summary of the reports of the Medical Officers of Health.

### **POLLUTION OF STREAMS.**

Many of the small streams are polluted, especially within the last few miles of their course. Improvements have been effected by the District Councils in certain instances, but as it is impossible to start sewerage schemes at present very little action is possible.

No action has been taken by the County Council.

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## DISTRICT MONTHLY RAINFALL—1919.

Stations.	Altitude.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Totals.
	feet.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.
Bude	50	6.87	3.80	3.84	1.93	1.48	0.91	0.57	2.58	1.67	0.84	2.53	5.96	22.31*
Launceston (Hex.)	446	6.41	4.73	5.81	2.93	1.82	0.86	1.07	3.42	2.05	1.71	5.52	7.52	43.38
Albaston	600	8.98	6.34	5.11	1.98	2.15	0.99	1.62	3.42	2.78	1.75	4.16	8.12	43.22
Pentillie Castle	150	8.20	6.37	7.35	3.15	2.02	0.99	1.68	3.62	2.34	1.98	4.98	9.77	53.20
Liskeard (Trevillis)	320	5.83	4.65	3.73	3.33	2.16	0.85	1.56	3.74	2.76	1.61	5.66	8.25	50.27
Newquay	100	5.89	6.31	5.04	2.24	1.53	0.80	0.90	2.65	1.56	1.09	2.86	5.36	33.20
Plymouth (Devon)	117	5.57	4.97	5.32	2.70	1.53	0.97	1.24	3.20	1.89	1.58	3.69	6.72	40.76
Cremyll	25	5.01	4.96	4.43	2.76	1.53	0.92	1.46	2.47	1.81	1.64	2.70	6.38	37.53
Fowey	...	6.83	7.51	4.30	3.24	1.90	0.62	0.70	2.55	1.15	1.16	3.85	5.71	35.28
St. Austell	300	5.25	4.80	3.90	1.94	1.36	0.73	0.67	2.12	1.38	1.21	2.95	5.64	31.95
St. Agnes	318	6.79	7.38	4.56	3.49	1.73	1.12	0.70	2.23	2.10	1.93	4.02	7.98	45.03
Truro Water Works	71	...	...	...	...	1.88	1.47	1.13	3.43	2.36	1.68	3.59	6.94	22.48+
Redruth (Cty. Sch.)	375	7.10	7.29	4.74	3.28	2.09	1.27	0.87	3.86	2.58	3.88	3.74	8.45	49.15
Trevice	240	4.20	5.01	4.47	1.65	1.67	0.98	0.78	2.56	1.52	1.79	2.81	4.86	32.30
Phillack	70	7.08	6.24	5.62	2.89	1.84	0.97	0.70	3.67	1.71	1.61	3.60	8.18	44.11
Falmouth (Obs.)	169	5.05	4.42	3.73	1.76	1.61	0.69	0.56	2.78	1.38	1.36	2.56	5.27	31.17
Bosahan	240	5.11	5.15	3.67	1.91	1.15	...	0.48	2.43	1.33	...	...	...	21.23+
Mullion	...	5.73	6.01	4.90	1.89	1.36	0.68	1.06	2.58	1.43	1.88	3.72	6.03	37.27
Marazion	30	6.07	6.30	5.80	2.53	1.59	1.16	0.98	2.86	1.72	2.04	3.97	6.48	41.50
Penzance	55	6.18	6.41	4.94	2.34	1.83	1.43	1.05	3.26	2.34	1.74	3.61	7.36	42.49
Redruth (Trewirgie)	...	...	...	...	...	...	...	...	...	...	...	...	...	...

\* 10 months' total.

+ 8 months' total.



## Sale of Food and Drugs Act, 1875-1907.

A record of the work done in the County is given here, but this work is under the control of the Chief Constable of the County.

Name of Article.	Number of Samples taken.	Gen u-ine.	Adul-terated.	Remarks.
Milk ... ..	133	110	23	53°/o, 41°/o, 37·4°/o, 37°/o, 34°/o, 31°/o, 24·1°/o, 20°/o, 19·5°/o, 15·6°/o, 14·3°/o, 2 of 12°/o, 2 of 10°/o, 9·7°/o, 8·5°/o, 8°/o, 7·6°/o, 5°/o, and 3·6°/o added water, 1 of 2·1 grains Boric Acid per pint, 1 of 57·6°/o deficient in fat, and 27·7°/o added water.
Scald Milk ... ..	9	7	2	One 21·8°/o added water and one 3·4 grains Boric Acid per pint.
Butter ... ..	7	7	...	
Margarine ... ..	23	23	...	
Lard ... ..	23	23	...	
Tea ... ..	8	8	...	1 very poor quality.
Cocoa ... ..	5	5	...	
Sugar ... ..	7	7	...	
Sweets ... ..	8	8	...	
Jam ... ..	3	3	...	
Dripping ... ..	1	1	...	
Rice ... ..	4	4	...	
Pepper ... ..	10	10	...	1 unusually high per-centage of ash.
Marmalade ... ..	1	1	...	
Chocolate ... ..	1	1	...	
Carbonate of Soda ... ..	2	2	...	
Saffron ... ..	5	5	...	
Baking Powder ... ..	5	5	...	1 poor quality.
Custard Powder ... ..	3	3	...	
Flour ... ..	1	1	...	
Bun Flour ... ..	1	1	...	
Corn Flour ... ..	2	2	...	
Self-raising Flour ... ..	3	3	...	1 poor quality.
Cake Mixture ... ..	2	2	...	
Egg Substitute ... ..	3	3	...	
Soup Powder ... ..	1	1	...	
Tapioca ... ..	3	3	...	
Sago ... ..	1	...	1	100°/o Tapioca.
Lime Juice Cordial ... ..	1	1	...	
Ham and Tongue ... ..	1	1	...	
Oxo ... ..	1	1	...	
Sherbet ... ..	2	2	...	
Jelly ... ..	2	2	...	
Ginger ... ..	1	1	...	
Yeast ... ..	1	1	...	
Corn Beef ... ..	1	1	...	
Soup ... ..	1	1	...	
Lemonade ... ..	1	1	...	
Gravy Salt ... ..	1	1	...	
Herb Beer ... ..	1	1	...	
Extract of Herbs ... ..	1	1	...	
Vinegar ... ..	8	8	...	
Malt Vinegar ... ..	2	2	...	
Oatmeal ... ..	1	1	...	
Total ... ..	361	275	26	



## SUMMARY.

### Temperature, Humidity, Rainfall, and Sunshine—1919.

STATIONS.	Mean Tempera- ture.	Mean Daily Range of Tempera- ture.	Mean Relative Humidity.	Total Rainfall.	Total hours of bright sunshine.	Authority supplying the Records.
	°	°	°/°	Inches.	(a)	
Bude ... ..	(a) 51·34	(a) 12·09	(a) 81	(a) 22·31	(a) 1598	Mr. K. Durston
Launceston (Hexworthy)	48·85	14·60	...	43·38	...	Mr. R. B. Rogers
Albaston ... ..	...	...	...	43·22	...	Mr. N. R. Rosekilly
Pentillie Castle...	...	...	...	53·20	...	Mr. W. T. Johnson
Liskeard (Trevillis)	...	...	...	50·27	...	Mr. L. C. Foster
Newquay ... ..	49·50	10·00	83	33·20	1691	Miss G. Kernick
Plymouth (Dev.)	49·72	11·45	81	40·76	1730	Mr. H. V. Prigg
Cromyll ... ..	(a) 51·94	...	...	37·53	...	Mr. S. B. Wilcox
Fowey ... ..	50·17	12·83	...	35·28	1843	Mr. C. I. Wellington
St. Austell ... ..	...	...	...	49·40	...	Mr. W. M. Coode
St. Agnes ... ..	...	...	...	31·95	...	Dr. Whitworth
Truro Water Works	...	...	...	45·03	...	Mr. W. J. Lean
Redruth County School ... ..	(b) 53·08	(b) 13·50	...	(b) 22·48	...	Mr. J. H. Hooper
Trevince ... ..	...	...	...	49·15	...	Mr. E. B. Beauchamp
Phillack ... ..	...	...	...	32·30	...	Rev. A. P. Hockin
Falmouth (Obs.)	50·16	11·45	87	44·11	1705	Mr. J. B. Phillips
Bosahan ... ..	49·95	10·33	...	31·17	1735	Mr. T. Crawford
Mullion ... ..	(b) 51·62	(b) 11·74	...	(b) 21·23	...	Mr. R. Thomas
Marazion ... ..	...	...	...	37·27	...	Mr. T. F. Michell
Penzance ... ..	51·81	9·55	80	41·50	1785	Mr. C. H. Benn
Redruth (Trewirgie)	49·07	9·87	85	42·49	...	Mr. A. P. Jenkin

(a) 10 months' figures. (b) 8 months' figures.



# REPORT OF ADMINISTRATION IN CONNECTION WITH THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

Report for the Year ended 31st December, 1919

## 1. Milk; and Cream not sold as Preserved Cream.

	(a) Number of Samples examined for the presence of a preservative.	(b) Number in which a preservative was reported to be present.
Milk - - -	95	2
Cream - - -	Nil.	Nil.

Nature of preservative in each case in column (b) and action taken under the Regulations in regard to it:—

- 1st contained 3.4 grains of Boric Acid per pint.
- 2nd contained 2.1 grains of Boric Acid per pint.
- Summoned and fined £2 and £1 15s. 6d. costs in each case.

## 2. Cream sold as Preserved Cream:—

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the labels as to preservatives were correct.

- (i.) Correct statements made ... .. nil.
- (ii.) Statements incorrect. ... .. nil.

(b) Determinations made of milk fat in cream sold as preserved cream:—

- (i.) Above 35 per cent ... .. nil.
- (ii.) Below 35 per cent. ... .. nil.

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V (1) and the proviso in Article V (2) of the Regulations have not been observed ... .. nil.

(d) Particulars of each case in which the Regulations have not been complied with, and action taken ... .. nil.

3. Thickening substances:—Any evidence of their addition to cream or to preserved cream ... .. nil.

4. Other observations, if any ... .. nil.

H. B. PROTHEROE SMITH, Lieut. Colonel,  
Chief Constable of Cornwall.



## TEMPERATURE AND HUMIDITY—1919.

	Mean Tempera- ture	Mean Daily Range of Tempera- ture	Mean Extremes of Temperature		Mean Relative Humidity of the Air
			Highest	Lowest	
	°	°	°	°	saturation=100
January ...	41.39	9.5	42.3	26.1	87
February ...	41.73	8.4	53.0	28.6	87
March ...	42.88	10.6	54.8	28.5	83
April ...	46.29	11.6	64.2	30.2	82
May ...	54.75	11.9	71.2	41.6	81
June ...	57.08	12.8	74.6	42.7	78
July ...	59.27	13.5	75.4	45.0	78
August ...	62.50	13.6	79.7	45.4	79
September ...	57.17	12.8	76.2	35.6	84
October ...	49.18	13.3	63.3	32.9	81
November ...	41.41	10.6	54.9	24.0	85
December ...	45.92	8.7	53.4	32.6	88
Means ...	49.96	11.4	Highest 79.7	Lowest 24.0	83
(Means 1918)	(51.33)	(11.5)	(77.1)	(22.9)	(84)

## RAINFALL—1919.

	Mean Total Rainfall.	Mean No. of Days when rain fell (0.01 in. or more).	Mean Greatest fall in one day.
	Inches		Inches
January -	6.21	24	0.76
February -	5.72	16	1.12
March -	4.93	23	0.75
April -	2.60	15	0.54
May -	1.73	12	0.50
June -	0.97	9	0.33
July -	0.98	9	0.34
August -	3.07	13	1.08
September -	1.94	14	0.53
October -	1.62	14	0.40
November -	3.77	18	0.73
December -	6.93	28	0.98
Totals -	40.47	195	1.12
(Totals 1918) -	(40.54)	(201)	(1.14)















TABLE I.—Total Number of Births and Deaths in each District during the year 1919.

DISTRICT.	POPULATION.		BIRTHS.						DEATHS.						
	Total for District.	Civil Population only.					Total.	Rate.	Under 1 Year.			At all Ages.			
			Legitimate.	Illegitimate.	Total.	Rate.			Number.	Total.	Rate per 1,000 births.	Number.	Total.	Rate.	
1	2	3	4	5	6	7	8	9	10	11	12	13			
URBAN.			M.	F.	M.	F.			M.	F.		M.	F.		
Bodmin - - -	3,876	3,721	37	34	3	1	75	19.35	2	4	6	80.00	32	37	69 18.54
Callington - - -	1,579	1,516	13	11	3	1	28	17.73	2	..	2	71.43	11	15	26 17.15
Camborne - - -	14,944	14,345	135	111	9	7	262	17.53	14	7	21	80.15	101	140	241 16.80
Falmouth - - -	12,839	12,325	89	78	16	6	189	14.72	12	8	20	105.82	98	113	211 17.12
Fowey - - -	2,020	1,939	13	10	1	..	24	11.88	..	1	1	41.66	12	15	27 13.92
Hayle - - -	877	842	11	4	1	..	16	18.24	..	..	..	6	13	19 22.56	
Helston - - -	2,792	2,680	19	17	2	5	43	15.40	1	2	3	69.76	19	20	39 14.55
Launceston - - -	3,840	3,686	21	22	2	1	46	11.98	..	2	2	43.48	21	43	64 17.36
Liskeard - - -	4,273	4,102	25	31	4	2	62	14.51	5	5	10	161.29	43	32	75 18.28
Looe - - -	2,558	2,456	22	17	..	..	39	15.24	1	..	1	25.64	18	12	30 12.21
Lostwithiel - - -	1,308	1,256	7	7	1	2	17	13.00	..	1	1	58.82	5	10	15 11.94
Ludgvan - - -	2,248	2,158	21	13	..	2	36	16.01	7	..	7	194.44	14	9	23 10.65
Madron - - -	2,721	2,612	21	18	..	1	40	14.70	1	2	3	75.00	15	21	36 13.78
Newquay - - -	4,839	4,645	21	27	1	2	51	10.54	2	2	4	78.43	25	20	45 9.68
Padstow - - -	1,967	1,888	14	16	..	1	31	15.76	1	1	2	64.51	9	11	20 10.59
Paul - - -	5,120	4,915	38	56	2	1	97	18.94	2	4	6	61.85	31	48	79 16.07
Penryn - - -	2,934	2,817	21	23	2	1	47	16.02	2	3	5	106.38	14	34	48 17.04
Penzance - - -	13,741	13,191	101	89	12	14	216	15.72	10	10	20	92.59	91	121	212 16.07
Phillack - - -	3,639	3,493	26	28	3	2	59	16.21	5	5	10	169.49	32	35	67 19.18
Redruth - - -	10,776	10,345	91	84	10	5	190	17.64	8	6	14	73.68	77	102	179 17.31
St. Austell - - -	3,256	3,126	23	22	4	4	53	16.27	3	2	5	94.34	16	24	40 12.79
St. Ives - - -	6,748	6,478	51	42	2	1	96	14.22	2	3	5	52.08	53	54	107 16.51
St. Just - - -	5,085	4,881	38	46	3	3	90	17.70	3	4	7	77.77	70	52	122 24.99
Saltash - - -	3,598	3,454	38	38	..	1	77	21.40	2	1	3	38.96	23	28	51 14.76
Stratton and Bude - - -	3,270	3,139	17	15	..	..	32	9.78	..	..	..	11	30	41 13.06	
Torpoint - - -	4,321	4,148	44	47	2	9	102	23.60	6	5	11	107.84	22	33	55 13.26
Truro City - - -	10,761	10,330	57	85	9	7	158	14.68	3	8	11	69.62	76	112	188 18.20
Wadebridge - - -	2,381	2,286	20	5	..	1	26	10.92	1	..	1	38.46	16	17	33 14.43
TOTALS - - -	138,311	132,774	1034	996	92	80	2,202	15.92	95	86	181	82.19	961	1,201	2,162 16.29
RURAL.															
Bodmin - - -	9,527	9,146	66	70	4	1	141	14.80	9	3	12	85.10	66	71	137 14.98
Calstock - - -	4,455	4,277	44	35	3	1	83	18.63	3	3	6	72.29	41	31	72 16.83
Camelford (including Boscastle) - - -	7,014	6,733	34	45	2	3	84	11.97	3	4	7	83.33	50	52	102 15.15
East Kerrier - - -	7,651	7,345	64	37	2	3	106	13.85	2	2	4	37.73	52	49	101 13.75
Helston - - -	16,716	1,6047	112	109	9	9	239	14.30	11	9	20	83.68	89	116	205 12.78
Holsworthy (part of) - - -	304	292	2	8	..	1	11	36.18	..	..	..	1	1	2 6.85	
Launceston - - -	7,143	6,857	41	48	3	2	94	13.16	3	3	6	63.83	55	44	99 14.43
Liskeard - - -	14,543	13,961	92	100	10	15	217	14.92	12	6	18	82.95	112	107	219 15.68
Redruth - - -	17,524	16,822	153	161	10	12	336	19.17	16	11	27	80.35	163	160	323 19.20
St. Austell - - -	33,933	32,574	251	213	13	18	495	14.58	23	15	38	76.76	178	206	384 11.79
St. Columb - - -	10,838	10,404	75	70	4	4	153	14.11	4	4	8	52.28	74	84	158 15.19
St. Germans - - -	13,962	13,403	94	81	7	9	191	13.68	11	1	12	62.82	71	66	137 10.22
Stratton - - -	4,457	4,279	35	33	4	..	72	16.15	5	1	6	83.33	40	34	74 17.29
Truro - - -	19,747	18,956	112	107	10	8	237	12.00	13	11	24	101.26	140	144	284 14.98
West Penwith - - -	10,906	10,469	98	72	4	5	179	16.42	11	5	16	89.38	73	84	157 14.99
Scilly Isles - - -	1,923	1,446	6	11	1	1	19	12.61	..	..	..	13	8	21 14.52	
TOTALS - - -	180,226	173,011	1279	1200	86	92	2,657	14.74	126	78	204	76.77	1,218	1,257	2,475 14.30
Whole County - - -	318,537	305,785	2313	2196	178	172	4,859	15.25	221	164	385	79.23	2,179	2,458	4,637 15.16

Rates calculated per 1,000 of the population. The Birth-Rate is calculated on the population given in Column 2, and the Death-Rate on the population in Column 3.







**TABLE II.—Infectious Diseases notified in each district during the  
Year 1919.**

	SANITARY DISTRICT	Diphtheria	Erysipelas	Scarlet Fever	Enteric Fever	Puerperal Fever	Cerebro-Spinal Meningitis	Polio-myelitis	Ophthalmia Neonatorum	Pulmonary Tuberculosis	Other forms of Tuberculosis	Measles	Encephalitis Lethargica	Acute Polio-Encephalitis	Malaria	Dysentery	Pneumonia	Totals.
<b>URBAN</b>																		
1	Bodmin	8	5	2	3	..	..	..	..	11	3	3	1	..	2	..	10	48
2	Callington	..	1	1	..	..	..	..	..	3	2	..	1	..	2	..	2	12
3	Camborne	150	11	45	5	..	..	1	2	25	4	37	..	..	10	..	36	326
4	Falmouth	9	1	4	1	..	..	..	..	11	3	146	..	..	..	..	..	177
5	Fowey	1	1	7	..	..	..	..	..	3	..	2	..	..	..	1	2	17
6	Hayle	1	1	1	..	..	..	..	..	1	..	..	..	..	..	..	1	5
7	Helston	15	1	1	..	..	..	1	1	3	..	..	..	..	..	..	..	22
8	Launceston	2	3	11	..	..	..	..	..	2	..	15	..	..	..	..	10	43
9	Liskeard	23	1	..	..	..	..	..	..	5	1	2	..	..	2	..	1	35
10	Looe	9	..	1	1	..	..	..	..	..	2	10	..	..	..	..	2	25
11	Lostwithiel	..	..	..	..	..	..	..	..	..	..	2	..	..	3	..	..	5
12	Ludgvan	..	..	34	..	..	..	..	..	..	..	11	..	..	..	..	..	45
13	Madron	..	..	3	1	..	..	..	1	1	..	7	..	..	..	..	..	13
14	Newquay	11	..	7	..	..	..	2	2	4	2	5	..	..	4	..	..	37
15	Padstow	12	..	13	..	..	..	..	..	..	..	4	..	..	..	..	..	29
16	Paul	2	..	9	1	..	..	..	..	1	..	18	..	..	1	..	1	33
17	Penryn	5	..	4	..	..	..	..	..	2	..	..	..	..	..	..	..	11
18	Penzance	8	..	8	2	4	..	..	2	12	3	149	..	..	2	1	8	199
19	Phillack	65	4	16	..	..	..	..	2	10	1	..	..	..	6	..	5	109
20	Redruth	15	7	9	..	..	..	4	2	25	2	2	..	..	1	..	18	85
21	St. Austell	6	1	2	..	..	..	..	1	4	..	3	..	..	..	..	..	17
22	St. Ives	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	4
23	St. Just	13	..	13	..	..	1	..	..	..	..	143	..	..	..	..	..	170
24	Saltash	9	1	..	2	..	..	1	..	3	..	7	..	..	2	..	3	28
25	Stratton & Bude	..	..	2	..	..	..	..	..	..	..	75	..	..	..	..	..	77
26	Torpoint	12	5	4	..	..	..	2	1	5	5	8	..	..	6	..	26	74
27	Truro City	108	2	9	..	1	..	..	1	23	4	5	..	..	..	..	..	153
28	Wadebridge	1	..	..	1	..	..	..	..	5	1	3	..	..	1	..	12	24
	<b>TOTALS</b>	<b>485</b>	<b>46</b>	<b>207</b>	<b>17</b>	<b>5</b>	<b>1</b>	<b>11</b>	<b>16</b>	<b>160</b>	<b>33</b>	<b>659</b>	<b>2</b>	<b>..</b>	<b>42</b>	<b>2</b>	<b>137</b>	<b>1823</b>
<b>RURAL</b>																		
29	Bodmin	21	3	22	..	..	..	..	..	5	..	52	..	..	2	..	3	108
30	Calstock	5	3	6	..	1	..	5	..	9	..	180	..	..	6	1	13	229
31	Camelford (including Boscastle)	..	2	4	..	..	..	..	..	1	..	97	..	..	..	..	1	105
32	East Kerrier	34	1	1	..	..	..	..	..	7	1	71	..	..	4	..	1	120
33	Helston	15	2	4	1	1	..	1	2	11	4	19	1	..	2	..	13	76
34	Holsworthy (part of)	..	..	..	..	..	..	..	..	..	..	5	..	..	..	..	..	5
35	Launceston	..	1	5	..	..	..	..	1	3	1	39	..	..	1	..	8	59
36	Liskeard	4	4	15	1	..	1	2	2	19	6	15	..	..	3	..	10	82
37	Redruth	70	12	54	3	..	1	3	1	42	8	31	2	..	3	..	25	255
38	St. Austell	39	8	45	2	..	1	..	3	25	2	157	1	3	5	..	3	294
39	St. Columb	7	1	18	..	2	..	1	1	4	1	5	..	..	..	..	3	43
40	St. Germans	4	2	9	4	..	..	1	..	9	6	73	..	..	6	..	20	134
41	Stratton	..	..	13	..	..	..	..	..	..	1	89	..	..	..	..	..	103
42	Truro	76	..	2	1	..	..	..	2	20	1	56	..	..	..	..	..	158
43	West Penwith	23	2	24	1	..	..	..	..	..	..	2	..	..	..	..	..	52
	<b>TOTALS</b>	<b>298</b>	<b>41</b>	<b>222</b>	<b>13</b>	<b>4</b>	<b>3</b>	<b>13</b>	<b>12</b>	<b>155</b>	<b>31</b>	<b>891</b>	<b>4</b>	<b>3</b>	<b>32</b>	<b>1</b>	<b>100</b>	<b>1823</b>
	<b>Whole County</b>	<b>783</b>	<b>87</b>	<b>429</b>	<b>30</b>	<b>9</b>	<b>4</b>	<b>24</b>	<b>28</b>	<b>315</b>	<b>64</b>	<b>1550</b>	<b>6</b>	<b>3</b>	<b>74</b>	<b>3</b>	<b>237</b>	<b>3646</b>







TABLE III.—Causes of Death in each District during the year 1919. (H—Male, F—Female)







Table IV. Causes of Death at Different Periods of Life in 1919

CAUSES OF DEATH.			AGGREGATE OF URBAN DISTRICTS.									AGGREGATE OF RURAL DISTRICTS.								
			All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—
All Causes	Sex	M	961	95	14	20	37	34	131	230	394	1218	126	21	32	45	52	144	277	521
		F	1201	80	8	17	44	39	142	255	610	1257	78	13	33	42	48	148	256	639
1. "Enteric Fever		M	1	...	...	...	...	...	...	1	...	3	...	...	...	...	...	...	1	...
		F	1	...	...	...	...	...	...	...	...	2	...	...	1	...	...	1	...	...
2. Small Pox		M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Measles		M	4	1	1	1	1	...	...	...	...	5	...	2	2	1	...	...	...	...
		F	3	...	1	1	1	...	...	...	...	2	...	...	1	...	...	1	...	...
4. Scarlet Fever		M	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...
		F	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...
5. Whooping Cough		M	2	2	...	...	...	...	...	...	...	2	1	1	...	...	...	...	...	...
		F	...	...	...	...	...	...	...	...	...	3	2	1	...	...	...	...	...	...
6. Diphtheria and Croup		M	21	...	1	6	13	1	...	...	...	14	...	...	4	10	...	...	...	...
		F	17	...	...	2	13	...	1	...	...	16	...	...	4	10	1	...	...	...
7. Influenza		M	49	5	...	2	2	2	22	8	8	74	4	1	2	4	9	20	18	7
		F	57	...	...	1	3	9	22	14	8	62	2	3	3	...	8	22	15	9
8. Erysipelas		M	3	1	...	...	...	...	1	1	...	2	...	...	...	...	...	...	2	...
		F	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Pulmonary Tuberculosis		M	78	...	1	...	2	10	32	29	4	109	...	...	...	2	12	40	44	11
		F	77	1	...	...	5	18	35	14	4	83	1	...	...	5	15	39	12	11
10. Tuberculous Meningitis		M	6	2	...	2	2	...	...	...	...	9	...	2	1	4	2	...	...	...
		F	5	1	...	1	3	...	...	...	...	10	...	...	3	3	3	1	...	...
11. Other Tuberculous Diseases		M	12	...	...	3	2	3	4	...	...	11	...	...	1	2	1	2	5	...
		F	17	...	1	1	1	2	5	4	3	14	...	...	1	3	2	5	2	1
12. Cancer, "malignant" disease		M	63	...	...	...	...	6	25	32	...	87	...	...	...	...	2	1	39	45
		F	132	...	...	...	2	14	55	61	...	132	...	...	...	...	11	59	62	...
13. Rheumatic Fever		M	4	...	...	2	...	...	2	...	...	4	...	...	...	...	1	2	1	...
		F	3	...	...	2	1	...	...	...	...	2	...	...	...	...	...	1	1	...
14. Meningitis		M	4	...	...	3	1	...	...	...	...	7	1	2	2	1	1	...	...	...
		F	5	1	...	1	2	...	...	1	...	2	...	...	...	1	1	...	...	...
15. Organic Heart Disease		M	117	...	...	...	...	7	33	77	...	175	...	...	...	1	3	11	41	119
		F	179	...	...	...	2	2	4	50	121	195	...	...	...	1	5	14	37	138
16. Bronchitis		M	59	5	4	...	2	...	1	8	39	66	8	2	2	...	...	...	10	44
		F	92	11	...	1	...	2	11	67	...	88	3	1	1	...	...	1	12	70
17. Pneumonia (all forms)		M	34	9	2	1	1	2	5	5	9	58	17	5	4	4	2	4	11	11
		F	49	14	2	4	1	6	6	12	...	54	9	4	7	4	2	8	6	14
18. Other respiratory diseases		M	21	...	...	1	...	5	8	7	...	36	1	...	1	...	2	6	17	9
		F	13	...	...	1	2	...	3	5	...	11	...	1	2	1	...	2	4	1
19. Diarrhoea, etc.		M	22	11	3	1	...	...	2	4	...	18	8	3	...	2	...	...	1	4
		F	18	6	2	1	...	...	3	6	...	18	9	...	...	...	...	1	4	4
20. Appendicitis and Typhlitis		M	4	...	...	1	2	...	1	...	...	8	...	...	...	4	...	2	1	1
		F	3	...	...	...	1	...	1	1	...	8	...	...	...	2	1	1	3	1
21. Cirrhosis of Liver		M	4	...	...	...	...	2	1	1	...	4	...	...	...	...	...	2	2	...
		F	3	...	...	...	...	...	2	1	...	4	...	...	...	...	...	1	3	...
21a. Alcoholism		M	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...
		F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Nephritis and Bright's Disease		M	36	...	...	1	...	4	20	11	...	36	1	...	2	1	1	4	10	17
		F	35	...	...	...	...	6	13	16	...	30	...	1	...	2	2	13	12	...
23. Puerperal Fever		M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		F	1	...	...	...	1	...	...	...	...	2	...	...	...	1	1	...	...	...
24. Parturition, apart from Puerperal Fever		M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		F	11	...	...	...	2	8	1	...	...	8	...	...	...	...	8	...	...	...
25. Congenital Debility, etc.		M	43	43	...	...	...	...	...	...	...	56	56	...	...	...	...	...	...	...
		F	37	37	...	...	...	...	...	...	...	41	40	1	...	...	...	...	...	...
26. Violence, apart from suicide		M	60	...	1	1	1	8	25	20	4	45	...	1	3	2	4	17	11	7
		F	7	1	...	1	...	2	1	2	...	17	...	...	2	4	2	1	...	8
27. Suicide		M	10	...	...	...	...	3	3	4	...	14	...	...	...	1	1	6	5	1
		F	6	...	...	...	...	4	2	...	...	3	...	...	...	...	1	2	...	...
28. Other defined diseases		M	300	16	1	2	5	6	13	64	193	360	27	1	7	5	9	20	53	238
		F	427	13	2	3	5	...	26	76	302	436	12	1	7	7	5	26	78	300
29. Causes ill-defined or unknown		M	2	...	...	...	...	1	...	1	...	14	2	1	1	...	...	5	5	...
		F	2	1	...	...	...	...	...	1	...	13	...	...	1	...	...	7	4	...



